EDUCATIONAL METHOD

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PSYCHOLOGY TEACHERS AND PROGRESSIVE EDUCATION

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In a recent sectional meeting of psychology teachers of a state educational association, the writer listened to a discussion centered on the project method of teaching psychology. One of the speakers viewed the project simply as a large unit of work. Another one considered it as a laboratory demonstration, for example, of color sensations and muscular reactions. Though there were vague and conflicting opinions among the speakers concerning the nature of project teaching, apparently they did not sense the inconsistencies. It seemed that tricks were being played on the project method. At any rate, no speaker showed an acquaintance with the commonly accepted views of the project as a real life-like activity, a purposeful activity, or an activity in which learning occurs incidentally.

More serious even than the confusion about the meaning of the project was the employment of their kind of project to violate the basic principles of not only the project method but also other progressive methods of teaching. On this score this particular group of psychologists alone is not guilty. Indeed much of the literature from the pens of psychologists continually reminds us of the wide gap between the views of education held by psychologists and progressive educators. To point out the contrast between these two opposed conceptions of education requires first a look at the essential elements of progressive education.

Perhaps the most fundamental characteristic of progressive education is concern for the individual. Whereas commonly the efforts of teachers are aimed directly at the impartation of information, the progressive educator centers his energies on the development of personal traits. Thus, instead of placing stress on the acquisition of subject matter, progressive education aims at the production of ever-growing personalities.

In keeping with regard for the individual, one chief element of progressive education is interest. This depends not on mere entertainment or enjoyment, but involves acting with a purpose and an appreciation of the activity. Its benefit lies both in more effective learning and in the inclination of the person to continue to grow in that particular field of learning after the completion of the course. Interests determine the attitudes, ideals, and outlook of the person. Indeed one's personality is lacking according as valuable life

interests are lacking. That is to say, progressive educators hold that the emotional aspect of the individual is important as well as the intellectual.

Activity, or learning by doing, is also a fundamental principle in progressive education. There is stress on construction, performance, accomplishment, and application. In contrast to the accumulation of numerous facts, especially through rote memory, facts are learned as needed in the solution of problems or in engaging in purposeful activities. Skills are acquired, too, not through mere information nor by means of mechanical drill but in connection with work on tasks meaningful and worth while to the student. Thus through learning by doing, it is hoped that the person will find his learning more effective in everyday living. And unless learning does improve social behavior it is considered relatively useless.

Again, progressive education makes special provision for creativeness. Whether dealing with ideas or things, production and self-expression are encouraged. Contrary to the promotion of uniformity and standardization in learning, progressive education supports development of individuality without reference to an external norm. In this kind of learning the goal exists in the imagination of the student and directs the activity instead of hard and fast prescriptions from textbook and teacher. In writing, for example, some will write poetry, some letters, and others short stories, each in the best way to engage in free self-expression. Necessary writing skills are developed in connection with the creative act of writing, and accordingly are appreciated.

Further, stress is placed on development of habits of thinking. In the progressive school the child is continuously thrown into problematic situations, where it is necessary for him to think. It is held that habits of thinking are developed by practice the same as any other habits. Information is necessary as material for thinking; but it is more meaningful to the person and functions more advantageously later if it is acquired as needed in the solution of problems. Moreover, life today is full of social, economic, and political problems which require the highest degree of intelligence for their solution. Accordingly, education advances most successfully when it rests as far as possible on problem solving, the problems being a personal source of activity. Indeed, development in habits of thinking through the solution of personal problems has been seen by progressive educators as the key to an educational program.

There is special effort likewise to promote social-mindedness. The mastery of academic courses is considered far less important than progress in social adaptability. Although contact with social material in subject matter is considered beneficial, chief dependence is placed on social living for the development of a social being. It is thought that group consciousness is secured best by means of participation in group enterprises. Class discussion and group projects or some similar form of teaching procedure accordingly are prominent in the progressive school. The school is made a little democratic society in which the children learn to live by living with the teacher and one another.

It can be seen that the whole program of progressive education aims at the improvement of human personality. Everything else is subordinate to this end. The ordinary school, in practice at least, gives more attention to the teaching of subject matter than to the development of persons. When this occurs standardization and uniformity are possible, and are regarded as essential. On the other hand the progressive idea employs school machinery, the courses of study, and the teaching pro-

cedure only in such a way as to contribute to the building up of desirable personal traits. Obviously, to meet the needs of growing personalities the progressive school program is flexible and subject to change. Freedom to grow is considered of primary importance.

Evidently, too, this concern of progressive educators for development of growing personalities rests largely on the demands of our complex and rapidly changing civilization. Mass instruction in uniform and standardized courses would be less objectionable today if society were rather simple and static, as in the past. A suitable education should equip the individual to face the present confusion with such success that he can aid in checking harmful changes and in supporting the continuance of desirable ones. As the term suggests, progressive education aims definitely at growth and progress of society. To this end, we repeat, the educational program must be very flexible and subject to frequent changes.

There is evidence that these essentials of progressive education are only of little interest to psychology teachers in general. Not only do they manifest no special concern about the aims of progressive education, but they even support a program of education that runs counter to progressive principles. In their anxiety to be classed as scientific they have been following practices that place standardization and uniformity above flexibility and change, elemental learning above broad comprehension, and a kind of animal training above the development of intelligence.

In support of our contention we turn again to the sectional meeting of psychology teachers of a state educational association. A speaker, in discussing the laboratory demonstration, which was classed by him as a project, stated that he had been anxious about the differences among the conclusions, or generalizations, expressed by his students in their written reports of the experiment. Accordingly he had proceeded to remedy what seemed to him a serious defect in his laboratory work by furnishing his students an outline of directions, hints, and partial answers. This would lead all of them to the same final conclusion. It is clear that he valued uniform conclusions more highly than the intellectual procedure followed in arriving at a conclusion. He failed to see, too, that the student's own conclusion, even though it is erroneous, is more valuable educationally than teacher-made conclusions. Because of his fear of erroneous conclusions he would rob his students of the opportunity to exercise intelligence.

Another speaker, on being pressed in the free discussion about the participation of her students in psychological demonstrations, frankly admitted that the only thing her students did was to record in notebooks the results of the experiments. She added that these results were definitely pointed out to the whole class during or at the end of the experiment. Doubtless she, too, obtained rather uniform reactions in the notebooks, but again they were secured at the sacrifice of contribution to the growth of students. Learning occurred solely through following directions rather than by means of self-directed activity, purposeful behavior, planning and carrying out plans.

Among those who conceived the project to be a unit of work, a slightly different plan of giving the students specific, detailed directions was indicated. As the particular unit was attacked, each student received sheets containing several incomplete statements, with columns of words in the margins from which appropriate words could be found for the blank spaces. It was clear that these teachers went to the limit in saving their students from mental exertion. Compared with the common idea of college

work, it was child's play to fill out the blanks. Also, rote memory sufficed in learning. Genuine interests in the topic itself, especially as a whole, and problem solving or creative thinking were neglected.

In the presentation of their testing programs, the speakers continued to emphasize elemental and uniform learning. When they completed a unit of work or a project, as they called it, they employed only the objective test as a means of grading. One speaker said, "I use the essay examination occasionally to encourage organization, but *of course* I employ only the new-type examination in grading." Have we reached the point where it is taken for granted by psychology teachers that the essay examination is valueless or dangerous in the evaluation of learning? Evidently this psychology teacher believes that he should not attempt to grade students on any educational outcome that cannot be measured quantitatively, or "scientifically." In grading his students he ignores ability to organize, to relate, to interpret, and to create.

But this teacher is to be commended for his consistency in employing a type of test that measures elemental learning, the kind of learning supported by him and many other psychologists today. In other words, since he and his fellow psychology teachers teach a unit of work by giving special attention to parts instead of the whole, information instead of personality traits, it follows that they should use a means of testing that tests isolated facts rather than relationships and broad comprehension. But the project method, as one of the teaching procedures of progressive education, presupposes a change in purpose. To use it and then use the old measuring sticks is to fail to comprehend its significance.

The practices of this sectional group of psychology teachers merely reflect a more or less general mania for the objective and the "scientific," with the resulting disregard or neglect of the fundamentals of progressive education. As a whole, psychology teachers appear more concerned about uniformity and standardization in the choice and presentation of subject matter than about the adaptation of teaching to the demands of growing personalities. A look at further practices will make this clear.

Educational psychology teachers representing two teachers' colleges experimented to discover the value of objective tests as teaching devices in educational psychology.[1] They endeavored to treat the experimental group and the control group alike, except that the experimental group received an objective test at the beginning of the unit of work. This test, corrected and returned to the students of this group, afforded direction in the study that followed. It served both in indicating through errors points where drill was specially necessary, and in supplying the student with a long list of minute details that the teacher planned to stress in lectures, readings, and final examination. As would be expected from several factors in the situation, the experimental group surpassed the control group "in achievement."

Very objectionable is the implication of this experiment for a type of teaching that exalts uniformity of reaction among all psychology students. This is evident from the attempt to hold all the students to the memorization of the same list of facts. When students study without any kind of extensive outline from the teacher, some facts will appeal to one student that do not appeal to another, which results in in-

[1] Hertzberg, D. E., Heilman, J. D., and Luenberger, H. W., "The Value of Objective Tests as Teaching Devices in Educational Psychology Classes." *Journal of Educational Psychology*, 23:371-380 (May, 1932).

dividual differences in learning. In this case there is an opportunity for the individuality of the student to express itself.

On the contrary, an objective test, as a teaching device, or any other kind of extensive list of facts giving direction of study, contributes to the clustering of students in "achievement." Seemingly oblivious to the principle of progressive education that independent thinking is made difficult, if not impossible, to the extent of success in forcing all minds into the same groove, these writers are pleased with the homogeneity resulting. In their words, "the very homogeneity created through the use of these tests should make them well worth-while as teaching devices."[2]

Similarly these psychology teachers have placed subject matter above growing individuals. Some psychology teachers frankly admit that the "objective test places a premium upon *one type of knowledge*, the factual."[3] But this fact is ignored if not rejected by those participating in this experiment. They state that the experimental group surpassed the control group "in achievement."

But the question inevitably arises: In what was the achievement? Typically, psychology teachers refrain from answering this question explicitly and fully. One has grounds for inferring, however, that they propose to sacrifice improvement of intellect and emotions for advancement in subject matter. Did the psychology students of the experimental group excel those of the control group in achievement in judgment, comprehension, interpretation, seeing relations, appreciation, and application? Until such a question can be answered favorably we are far from the scientific evaluation of objective tests as teaching devices, unless we are willing to stake our case on informational gain as the end of the educational process.

The fact of the case is that because of the present character of the objective test its use leads inevitably to a type of learning in which creative thinking is certainly incidental, if present at all. Whether used for measurement of learning or as a teaching device it calls for memorization of specific, elemental facts instead of comprehending and creating. When it is employed, the consistent way of "mastering" subject matter is by grasping parts rather than the whole. But special attention to the memorization of isolated parts is usually of little value to the learner in the development of important habits of thinking, such as viewing the whole situation, suspended judgment, carefully testing hypotheses, organization of material, and generalizing.

Fairness demands that some definite recognition should be given to the work of the few psychologists who are following the implications of the principles of progressive education for a testing program. Tyler,[4] for example, has pointed out that the typical objective test is a test of information, and therefore should not be considered as a test of the more important outcomes of education. He has constructed an objective test for measuring inferences in zoölogy, which has a correlation of only .29 with an informational objective test in this subject. This work of Tyler is a turn in the right direction. But, regardless of the future development of objective tests, those used by the psychologists to whom we have referred were strictly informational in character. Our criticism has been against the prevailing practices of psychology teachers in the present.

[2] *Ibid.*, p. 376.
[3] Wheeler, R. H., and Perkins, F. T., *Principles of Mental Development*, p. 500.
[4] Tyler, R. W., "Measuring Ability to Infer." *Educational Research Bulletin*, 9:475-480 (Nov. 19, 1930).

Clearly the line is drawn between the principles of progressive education and common practices of many psychology teachers. Measured by the demands of progressive education these teachers are reactionary in teaching procedure. Their practices hark back to the day when impartation of details of subject matter was the principal aim rather than improvement of personal traits and to the time when uniform mass instruction was more acceptable than provision for individual growth.

It is evident that psychology teachers have not sufficiently considered points of view in education. What they need to do is to examine the basic principles of education to discover whether or not some need to be discarded. In other words, psychology teachers must evaluate the goals of education before they can wisely give attention to discovering the best ways of reaching the goals. Their greatest need at present is a sense of direction. Both in experimentation and in teaching they should give their attention to a better way of going not in the wrong but in the right direction.

To be specific, if we do not want the memorization of elemental, isolated facts as the chief outcome of education, studies about the uses of objective tests are of little value. By the employment of statistical procedure we may show the most efficient way of robbing banks, but this fact should not influence sociologists to recommend the robbing of banks. But most psychology teachers apparently are inclined to approve whatever teaching procedure is supported by "scientific" experimentation. Generally speaking, they are using statistical procedures to establish improved methods of advancing a reactionary instead of a progressive type of education. Similarly, if the acquisition of specific, disconnected facts is not of primary importance, the practice of psychology teachers in the employment of a teaching technique that stresses such learning is very objectionable. Obviously to improve classroom procedure psychology teachers need to cultivate a better appreciation of educational values.

More progress in teaching psychology, and other subjects as well, will occur when psychology teachers accept a progressive philosophy of education. As already indicated, acceptance of the principles of progressive education is essentially the acceptance of a program of development of scientific habits of thinking. What we need is more experimentation and practice in college teaching that will result in the promotion of scientific minds. As we have seen, present research and practice of psychology teachers generally interfere with the promotion of attitudes and habits of research among psychology students. There has been emphasis on the learning of specific, disconnected facts instead of seeing psychology as a whole and the growth of important personal traits. But, since the spirit and practice of progressive education promote the spirit and practice of research in students, consistency demands that psychology teachers follow the principles of progressive education.

An approach to the actual practice of teaching psychology according to the principles of progressive education may be seen in a study made by Terry[5] in the University of Alabama. Terry wisely points out that we can expect psychology to function in the solution of problems in the public schools only in case prospective teachers learn psychology through solving problems such as they will encounter in service.

[5] Terry, Paul W., "The Problem Test in Elementary Psychology." *The Journal of Educational Psychology*, 23:259-265 (April, 1932).

Accordingly, Terry made a study of the problem method of teaching psychology. He concludes that there is evidence that the students' habits of study and their attitudes toward the subject and the teaching profession were improved by the problem attack on psychology. Moreover, the improvement of these valuable personal traits occurred without any sacrifice of informational learning.

When psychology teachers as a group begin to practice some such teaching procedure we can expect prospective public school teachers to learn from example the meaning of progressive education. Until this does occur we shall continue to have, in the relationship of psychology teachers to public school teachers, the blind as leaders of the blind, with both falling into the ditch.

EDUCATIONAL REFORM IN POLAND[1]

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With the coming into existence of the Polish Republic in 1918, the government of Poland was faced with a multitude of problems, not the least important one being that of the education of its citizens. That part of Poland which had previously belonged to Germany had been brought up in all the educational traditions of Germany, the children receiving only privately a training in the Polish language and history. The part that had belonged to Russia, on the other hand, had very few schools, inasmuch as the Czarist government was in general opposed to the education of any but the aristocracy. In Austrian Poland, however, the situation was quite different. This part of Poland, as a province of the very heterogeneous Austro-Hungarian monarchy, was given a degree of independence and self-government which Russian and German Poland did not enjoy. Thus in Austrian Poland, Polish schools not only were allowed but were really the only ones that were supported by the citizens, practically all of whom were Polish. That part of Poland had then its own educational system independent of the rest of the Austro-Hungarian monarchy. In style, however, the educational system was patterned after that of Austria.

With the conclusion of the war with Bolshevist Russia in 1920 and the taking of an inventory by the General Reconstruction Board of the damage caused by six years of war, it was discovered that, among other things, 1,800,000 buildings had been destroyed; included in this number were 6,000 school buildings.

The problem in the field of education was not, however, simply the physical one of constructing new schools but, in addition, that of determining the educational system to be introduced. Inasmuch, however, as the majority of the members of the Ministry of Education came from the Austrian part of Poland, an educational system similar to Austria's was temporarily introduced.

For children from the age of 7 to 14 there existed grammar schools which qualified them for entrance to agricultural,

[1] The writer wishes to express his indebtedness to Dr. Witold St. Kruk, secretary of the Psychological Committee in the Ministry of Education in Warsaw, for details concerning the new plan.

technical, commercial, and similar type institutions. For the training of teachers for the grammar schools, there existed a five-year course, the completion of which did not, however, qualify a person for the university or other higher institutions.

Contemporaneous with these were the so-called "gymnasia" for pupils from the age of 10 to 18. From the fourth year on, at the average age of 14, the gymnasium was divided into four types:

1. The classic, requiring Latin and Greek.
2. The humanistic, requiring Latin and one modern language.
3. The neo-humanistic, requiring two modern languages.
4. The mathematical-naturalistic, requiring one modern language and electives in science.

One examination covering the entire gymnasial education was taken at the end of eight years. Those passing it were given a certificate, the equivalent of the German-Austrian "Reifungs-Zeugnis." This certificate qualified one for entrance to that part of the university or other higher institution for which one had prepared in the gymnasium.

Theoretically, one entered the fourth class of the gymnasium after having completed the elementary school. Actually, though, there was such a very marked difference between the preparation one received in the last three years of the grammar school and the first three years of the gymnasium that pupils with the former background often had great difficulty in entering the higher institution directly. Consequently, most pupils entered the gymnasium at the age of 10, after completing three to four years in the grammar school.

In what had previously been Russian Poland, there were practically no grammar schools and as a result temporary schools which would help prepare pupils for the gymnasium were established.

During the first year of the existence of the Republic, school buildings were rapidly constructed all over the country, but still not at a pace fast enough to accommodate all pupils, so that even by 1924 only 60 per cent of the pupils had places in schools. By 1929, however, the purely physical difficulties having been overcome, the number reached 93 per cent, which is higher than that of many another European nation; Italy, for example, has only 85 per cent.

That all the children could not be placed in school is due entirely to the topography of Poland. In its eastern part it consists of many swamps and marshlands, the so-called eastern "Kresy," where over a century ago Napoleon's troops returning from Moscow were systematically cut down by the Russians. Contact between the inhabitants of these marshes is possible only in winter, when everything is frozen. Communities are small and very far between and are not easily accessible to everybody. While, then, in the rest of Poland 100 per cent of the children are in schools, in the eastern "Kresy" only 76 per cent of the children have the opportunity of attending a school conveniently located.[2]

The educational system patterned after that of Austria did not, however, prove satisfactory and attempts were frequently made to reorganize it. The reforms advocated by the then Minister of Education, Stanislaus Grabski, while of a positive character, did not, for many reasons, achieve realization.

In 1932, however, Minister Jedrzejewicz, as well as the Under-Secretary of State, Pieracki, began work on the reorganization of the educational system. Several committees were called upon to work in specialized fields; among others were psychological, sociological, and teaching methods committees. On the basis of their re-

[2] Data from the *Polish Statistical Annual.*

searches, the various groups formulated in general principles their recommendations, which served them as guideposts in the establishment of a new educational system.

By the spring of 1932, the reforms were crystallized into a new system, presented to the legislative body and passed. Since the autumn of 1932, reorganization has begun but is proceeding very gradually, so that the new system will not be totally in effect till 1937.

According to the new project, the educational system will be as follows: There will be an elementary school for children from the ages of 7 to 13. This will be divided into a lower and an upper part, each requiring three years of study. Even if the number of children is too small to have a full grammar school, the program of studies, although decreased, will still take six years.

With the completion of grammar school at the age of 13, the pupil may either enter the gymnasium for a general education, or a trade school for training in a particular field. If, however, he does not wish to pursue his education very much further, he enters a special seventh grade of the grammar school, after the completion of which he is usually ready to start work. Up to the age of 18, however, he must still continue his education by taking evening courses. In this manner, then, the obligatory educational period is extended to about the age of 18. In the majority of other countries obligatory education ends at 14.

The intermediate schools, that is, the trade schools and the gymnasia, require four years. With the completion of the intermediate school, which corresponds to the completion of sixth grade of the old type gymnasium, the student receives all the rights which formerly belonged to one who had completed the gymnasium, except that he gets the various privileges about two years earlier. These include, among others, a shortened military service, admission to the training school for officers, and qualification for certain types of official administrative positions.

With the completion of the new type gymnasium, which is given an integral and definite part in the entire educational system, the student wishing a further education enters a lyceum (the counterpart of the American Junior College), which prepares him either for the university or for the polytechnical institute. The lyceum is divided, of course, into suitable departments to prepare students in a definite direction, whether for the study of medicine, law, engineering, or some other profession. Besides these lycea, there will also be a special type to prepare those who wish to become teachers. Training in this type of lyceum takes three to four years, in contradistinction to the usual type, which requires but two years.

In a class by themselves are the commercial and business schools. These really are of three types: those to be entered after completion of grammar school; those admitting only students who have finished the gymnasium; and those requiring a lyceum training. These three types fit one, of course, for correspondingly more responsible positions in the business world.

As for the financial aspect of the new system, all costs of the individual elementary and intermediate schools are to be borne by the immediate community, the government subsidizing, however, those in greatest need. While the elementary, trade, and evening schools, which are obligatory for one who does not wish to pursue his education further, are free, the gymnasia and all other higher institutions require certain minimal payments which, however, according to American standards are very low. There are, in addition, private schools which have their own fees.

The new system does not really lengthen, then, the period of studies required, but simply makes them obligatory for those who would not, without external pressure, strive for an education. The only thing that really is changed is the division and organization of studies.

The advantages of the reformed system are:

1. It is much more democratic; all children attend the same grammar school. There is not the distinction between the elementary school and the intermediate gymnasium; each serves its specific function. The school system of the entire nation being uniform, a person may move freely from one part of the country to another and not lose a year or two meeting divergent requirements.

2. It answers better the requirements of the latest experimental, psychological findings which advise choice of vocation around the age of 16 or 17, but not earlier. Up to this time, the moment of choice was present already in the tenth and even in the eighth year, when the parents had to decide to what sort of a gymnasium a child should be sent, inasmuch as transfers from one type of gymnasium to another were difficult due to the difference in programs.

Besides, in the smaller towns, where there existed but one type of gymnasium, the student would be forced to attend that one, despite the fact that it might not answer his personal needs. This would create many difficulties for him when trying to be admitted to a higher institution of learning. A training in a neo-humanistic gymnasium, for example, would not fit the student for the study of medicine and he would have to do extra work in order to prepare himself for entry to the university medical school.

At present, however, this difficulty is done away with. The education of children all over the country is about the same to the age of 17. At this time the interests of a boy are more crystallized and he is capable of considering his position more objectively and deciding more rationally what direction he wishes to take in his studies.

At the same time, those who are not expecting to go beyond their intermediate studies have behind them an education which gives them various privileges which they attain two years earlier than they would have according to the old system. These two years they do not miss, inasmuch as they formerly were but a preparation for entrance to the university and were really useless for one who did not expect to continue his studies.

3. It raises the level of the teachers in the grammar school. Up to this time, all they usually had was an education in the intermediate school. Now, after completing their normal intermediate training they enter a teachers' lyceum where their education compares favorably with that received in one or two years of study in a higher institution.

In the old system, a person couldn't become a teacher until he was 21 years of age. Consequently, after finishing elementary school at the age of 14, he would usually wait two years before beginning his five-year training course. However, only the last two semesters of this five-year course were devoted especially to training in teaching methods, the other four years being an attempted approximation to the education received in the gymnasium.

According to the new system, the two years that were formerly spent in waiting will now be utilized for a more intensive training. In this way it is expected that, independent of all reform programs, the general level and tone of the entire educational system will be raised by improving the quality of the teaching material.

4. It breaks away entirely from the idea

of a bi- or multi-directional system of education and introduces to a high degree the ideal of an integrated and unified school system (*l'école unique*).

5. It tends, by narrowing the educational differences between the various social classes, to lessen the threat of a class struggle similar to the one which arose in Russia because of the gulf between the upper and the lower strata of society.

As yet the new plan makes no provision for especially bright or especially dull children. Those, however, who do show unusual talents may, in exceptional cases, be allowed to complete their elementary or intermediate training in a shorter time.

For the future there is a tentative plan to create in the larger schools two divisions, in one of which the brighter and more brilliant pupils would receive a training different from that of their comrades. This projected program envisages, however, not a more extensive education for the brighter students but a more intensive one.

Coincident with the reforms in the elementary and intermediate schools is a reform of the universities and other higher institutions of learning. Possibly the most revolutionary change is that giving the Minister of Education the right to retire or transfer professors as he sees fit. According to the legislation recently passed, the previously academically free and independent university system will be quite definitely subordinated to and centralized under the Ministry of Education, whose seal of approval will be necessary as much for the election of university rectors as for the existence of student societies.

Naturally, these revolutionary changes have been productive of heated partisan verbal clashes and cannot readily be judged close at hand. Perhaps in the clearer light of historical perspective a fair evaluation will be more possible.

HOW WE MAY HELP TO CORRECT SPEECH DEFECTS

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It is estimated that approximately four per cent of the pupils in elementary grades have speech defects which demand special attention. It has been stated by others that eighteen per cent of school children and about as many adults are handicapped because of varying degrees and types of speech disorders.

The majority of speech defects may be corrected or greatly benefited. In order to bring about improvement we must first of all consider the facts and factors which pertinently bear on the causes of speech difficulties.

As in the case of all types of physical and mental disorders, we must consider the individual as a whole, functioning as an integrated unit. Something may go wrong on various individual or combined levels of the integrated person—for example, structural (organic), physiological (functioning of parts), or psychobiological (mentally integrated behavior). But, in any event, the person reacts as a whole and as such we must study him, including constitutional or ingrained factors as well as those of environment and experiences and the individual's reaction to them.

In the case of speech disorders, the cause may lie in (a) some *structural abnormality*, either congenital or acquired; for example, deformities of the end organs of speech, such as deformed or cleft palate, harelip, missing or deformed teeth with faulty occlusion, abnormality of lips or tongue, defects in the larynx (voice box), or obstruction of, injury to, or abnormal growths in the nose, throat, or pharynx, such as diseased tonsils and adenoids. Muscular weakness in the tongue, lips, and soft palate may also result in faulty speech utterance or defect, such as "nasality," "baby talk," "lisping," and "lolling." Imperfect hearing may also result in imperfect speech, since we learn to speak largely through imitation.

(b) Some *functional defects*—for example, faulty habits of breathing, enunciation, and utilization of speech organs, faulty learning and imitation, as in family peculiarities of foreign accent or dialect. General debility and lowering of muscular tone after an illness, and also malnutrition may be contributing causes. There is also some evidence pointing to interference with left-handedness as a more or less leading cause of stuttering in certain individuals.

(c) Some difficulty more or less on the *mental level* (psychogenic), such as emotional conflicts, fears, shocks, and other complex experiential data which, operating during a period of stress or strain, or in certain types of constitutions, have so sensitized the individual that ideas, memories, anticipations, imaginations, or associative factors cause interference with the harmonious working of the speech function. Such causes especially operate in stammering[1] (hesitation and difficulty in making a sound) and stuttering (repetition of the first sound).

In the "stutterer" we usually encounter an individual who is possessed of immaturity of make-up, which in turn represents an expression of lack of organization of the personality. Moreover, such persons are prone to have hereditary, constitutional, or ingrained factors of emotional instability. When confronted with certain life adjustments which are accompanied by varying amounts of stress or strain, such as when first entering school, employment, or talking before a group, there tends to develop psychopathic tendencies as evidenced in stuttering.

The *treatment of speech defects* rationally lies in the removal of the cause, or rather causes, since there are usually several causative factors at work. In the case of structural defects, surgical treatment may be desirable or necessary. Special attention should be paid to the ears, nose, and throat. Where functional difficulties obtain, we must pay particular attention to remedial speech work by good habit training in the proper use of the organs of speech and their accessories, as well as in giving attention to the environmental factors, such as the removal of stress and strain in the form of excitement, gratuitous criticism, or poor speech example in others.

The *treatment of stammering or stuttering* is based on a study of the whole personality. We must know the facts of the individual's constitutional equipment, his life experiences and reactions to same, especially those experiences which were highly emotionally tinged and which left an indelible impression, consciously or not, on the immediate center of awareness. Reliving of past experiences under critical guidance as in a "distributive analysis" is effective in desensitizing the sufferer of his "sore spots" which may be playing a leading rôle in causing the speech defect. In such an analysis we should pay particular

[1] "Stammering" and "stuttering" are usually utilized interchangeably in this country. In continental Europe, "stammering" is reserved to designate such a speech defect when organically determined.

attention to the person's attitude toward life, since we often find an immaturity of ambition and unwillingness to adjust to life as it is.

Keeping in mind the above method of approach to an intelligent and comprehensive interpretation and treatment of various types of speech defects, let us formulate a few *general rules* which experience has found to be helpful in correcting such disorders:

1. Gain the confidence, good will, and desire of the person to correct his difficulty. Convince and reassure him he can get more or less rid of his handicap if he is willing to put forth a persistent effort.
2. Surround him with a sympathetic, calm, understanding, and encouraging atmosphere.
3. Ignore his speech shortcomings and make occasion to praise and reward him whenever improvement takes place.
4. Never correct him in the presence of others.
5. Do not call upon him to speak before a group, but encourage him to volunteer.
6. Urge him to relax his abnormal muscular tension and become at ease, then think the sounds before attempting to say them.
7. Urge him to pronounce every word slowly, distinctly, and correctly.
8. Writing the first letter of each word in a sentence will assist the stutterer to overcome the tendency to repetition of the first sound.
9. Secure the coöperation of parent, teacher, and others in intimate contact with the child in not only creating an encouraging, sympathetic attitude toward the child but also in assisting him in practicing at home and at school special speech corrective exercises. At the same time, the child should be led to realize that he himself is the chief agent in getting well.
10. Speak and study aloud during study periods, as silent practice is of little value in overcoming a speech defect. The use of a mirror will be of assistance in bringing about the proper use and position of certain end speech organs.
11. Do not interfere with changing the function of the dominant hand, such as urging the left-handed individual to write with his right hand. Where ambidexterity or uncertainty exists as to which hand is dominant, note which hand is usually used to throw objects or to comb the hair. Make occasion to utilize to the full the same arm in various games and sports activities.
12. Tactfully seek to give the individual an understanding of the causes and sources of stress and strain which contributed to the stuttering habit. Since these are largely environmental emotional factors, the individual should be assisted in gaining good habits of emotional control. The social environment should be devoid of a highly charged emotional atmosphere, and except in utilizing encouragement, praise, and reward, it should totally ignore the speech difficulty.

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THE SCHOOL AS A SUBSIDIARY OF THE PSYCHOLOGICAL CLINIC IN THE PREVENTION OF NEUROTICISM IN CHILDHOOD

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Within recent times the school has undergone a subtle change in its attitude toward the pupil. Whereas in the early days of public school education great stress was laid upon the inculcation of facts and moral precepts, the attitude today has veered to a recognition of the significant rôle which the school administrator must play in the problem of maintaining the adjustive relationship between the child, the community, and the school.

In periods of normal social and economic conditions the maintenance of emotional equilibrium in the child becomes a relatively easy matter. Home conditions are such that parent-child relationships are presumably favorable to the child's adjustment in the home. Adults are less preoccupied with efforts to surmount seemingly endless obstacles and are more prone to react rationally to the child's needs. The social atmosphere lacks that electric tension which marks periods of stress and storm. The environment, as a whole, is unfavorable to the development of neurotic patterns of behavior.

When, however, the political, economic, and social structure of society appears in imminent danger of disintegrating, the effects of such a crisis will probably persist for a long period of time and will, from the psychological point of view, manifest themselves in the reactions of those who have lived through the emergency period.

Radical readjustments in social status are taking place at the present time. Individuals once vigorous and active have been forced from the battle of life and have retired ignominiously to function as listless spectators behind the lines. Those who were once in command are forced to obey; those who were securely independent in the past are faced daily with the necessity of rebuilding shattered economic edifices. In the words of Walter Lippmann, "Whirl is King."

It is logical to suppose that the child will respond to these far-reaching and significant changes. A certain proportion of children will make adequate adjustments to the rapidly shifting scale of values and standards going on about them. With such children we need not concern ourselves. There are, however, certain types of children who will fail to synchronize with these changes, who will make inadequate responses to altered parental temperaments and purses; children who, as a consequence of inferior early training or the possession of sensitive neuro-glandular systems, will break down in the presence of exacting situations and manifest the symptoms of maladjusted or neurotic behavior.

It is with children of this type that school systems of today must be concerned. The neurotic child must first of all be recognized as a case of disordered behavior. He must be differentiated from other types of children with a high degree of accuracy, and the nature of his maladjustment must be studied and given careful treatment.

In the differentiation of such children in the early stages of neuroticism, much preventive work is possible, and a great portion of the responsibility for weeding out the potentially and actually neurotic rests with the teacher. The opportunity of observing the characteristic behavior patterns of the individual child in the schoolroom should be utilized in the first steps of a program directed toward the goal of reducing the number of neurotic children in our schools; in so doing we may, in some measure, effectually check the alarming increase of nervous breakdowns in adult life.

In stressing the new rôle which the school and the teacher must assume in the process of psychological reconstruction, the psychologist by no means minimizes the contributions he must make toward the perfection of devices whereby the neurotic child may be differentiated from the normal in a relatively early stage of development. A realization of the necessity for technics which will be both simple to administer and accurate indicators of neurosis has led to the present study, which will be described briefly.

The construction of an inventory for the discrimination of the neurotic child rests upon the logical assumption that such a child will, when confronted with a list of pertinent symptoms of the syndrome in question form, so score them as to differ markedly from the scoring exhibited by a normal child. The early work upon this approach dealt entirely with adults who had undergone personality changes under the strain of warfare. The first inventory was devised by R. S. Woodworth and is known as the Woodworth Personal Data Sheet. This test was based upon McCurdy's War Neurosis, and paved the way for similar attacks upon the objective determination of neurotic syndromes in the individual.

Modifications of the Woodworth Sheet have been utilized in later studies of the child, without regard to the obvious fact that the neurotic child and the neurotic adult must be regarded from slightly different points of view. In order to correct this situation, a thorough search was made of the literature on the nervous child. This bibliographic analysis included the fields of medicine, psychology, psychoanalysis, sociology, and pediatrics. Much time and energy were expended in efforts to collect all observations upon children of this type.

As a result of careful sifting of the accumulated data, 176 questions were retained, which were distributed as follows:

School	11
Home	21
Physical	30
Anxiety symptoms	5
Sensitiveness	4
Social coöperation	11
Inferiority feelings	9
Sleep disturbances	10
Nervous habits	10
Escape mechanisms	7
Resistance to authority	3
Sadistic tendencies	4
Hallucinations	2
Obsessive ideas	6
Superiority feelings	5
Personal idiosyncrasies	9
Indecision	4
Temperamental	12
Self-estimate	7
Miscellaneous	6

This list of questions was then administered to 1,663 school children of both sexes from the fourth to the ninth grade inclusive. Chronological age ranged from 9 to 14 years, with an equal distribution for each age and grade group. As a further check, the Morgan Test of Intelligence and the Sims Socio-Economic Score Card for the determination of socio-economic status were administered. This

group of unselected children was obtained from Cleveland, Columbus, and Dayton schools.

The items were then scored in accordance with their significance in the literature and the scores arranged in descending order. In order to validate the items and select those which were most differentiating, the upper third—those with the highest scores—and the lowest third—those with the lowest scores—were selected as the criterion group. The number of neurotic reactions on each item was counted separately for each group and the difference between the number of atypical answers for the upper group and the corresponding number for the lower group was used as an index of validity. The greater the difference between the groups the more valid the item. In addition to this method we resorted to another device, known as the method of overlapping score. The mean criterion score for all persons marking the item normally was calculated. The percentage of persons in the neurotic group whose criterion scores equaled or exceeded the mean for the normal group was calculated; those items were selected which showed the lowest percentage of overlapping. Final selection of items was based upon amount of agreement between the two methods.

It was desired further to determine the reliability of the revised and validated inventory. In order to do this three random groups of 100 each, composed of children from the fourth, sixth, and eighth grades were selected and the correlation between odd versus even items computed. The reliability of the entire inventory, as determined by the Fisher Z function and corrected by the Spearman-Brown Prophecy formula is $+.896 \pm .007$, which is considerably higher than other inventories now in use.

A third random group was then selected by taking every fourth case from the entire group of 1,663 cases and correlation with the other variables was computed. These were as follows:

Inventory score and socio-economic status	$-.118 \pm .003$
Inventory score and chronological age	$+.009 \pm .03$
Inventory score and mental age	$-.111 \pm .03$
Inventory score and I.Q.	$+.013 \pm .03$
Inventory score and grade level	$-.370 \pm .03$

The correlation between an appended list of 92 fears and inventory score was found to be $+.367 \pm .03$.

It is interesting to note that there is practically no relationship between neurotic scores and chronological age, despite the fact that individuals in the midst of adolescent transition were included. This indicates that the adolescent storm and stress period, whatever else it may be, is probably not a neurotic manifestation. Children in the lower grades show a tendency to be more neurotic than those in the upper grades, the neurotics in this group also exhibiting inferior age-grade status in comparison to normals. This is not true of children in the upper grades. Whether increased difficulty of the curriculum at this stage is a significant factor remains to be determined. No significant sex difference was discovered.

A tentative picture of the neurotic child, based upon a study of the validated items, may be presented at this time.

Children of this type may be separated into two pragmatically valid groups (although there is some overlapping): (1) those who dissipate huge quantities of energy in futile attempts to adjust adequately to personal and environmental needs, and (2) those who relinquish the struggle for personality survival by retreating from the external world into one of their own creation.

Children of the first group are characterized by deficient inhibition and strong impulsion. They are easily angered and are calmed with difficulty. They antagonize others by responding in direct opposition to requests made of them and resent being joked with or teased. This aggressive defense of personality status is further evidenced by inability to accept criticism in a normal fashion, rebuffs or reprimands being generally followed by anger or brooding self-pity.

Children of the second group are usually introverted and attempt to render themselves as inconspicuous as possible. Self-underestimation is indicated by the fear that their statements are disbelieved, that they are misunderstood, that too much is expected of them, and that they are inferior to others. Day-dreaming is frequently resorted to as an escape from baffling realities. Competitive activities are usually avoided for fear of defeat.

Both groups manifest physical symptoms which may prove of psychological significance. Headaches, cold extremities, dizziness, enuresis, respiratory difficulties, tics, toothaches, transitory body pains, and chronic fatigue are more prevalent among psychoneurotic than among normal children. Both groups give evidence of psychologically unhygienic homes, where either parental incompatibility, invalidism, or neuroticism result in chronic domination or suppression of the child, thereby antagonizing it into a perpetual attitude of overt aggression as a defense technique or else cowing it into an introverted submission. The psychoneurotic child is more likely to "run away" from home than a normal child and appears to evidence the "foster-child" phantasy most strongly.

In the schoolroom, the neurotic child *cannot* be differentiated from the normal upon the basis of sex, chronological age, I. Q., mental age, or socio-economic status, since these factors have proved insignificant. Neurotics, however, find it difficult to pay attention to the teacher, are afraid to recite even when prepared, make many careless mistakes in their school work, quickly forget what they have learned, regard school work as too difficult and feel that their grades are unwarrantedly low. Undesirable reaction patterns developed in the home are sometimes transferred to the school environment, thereby probably engendering school maladjustment. Attitudes of distrust and suspicion against parents may, upon slight provocation, be directed against the teacher.

In view of the progress made in differentiating psychoneurotic children, and especially the fact that the present inventory appears to be reliable for the indication of neuroticism in grade school children, we may confidently hope to see the day when, in addition to intelligence and placement tests, every child entering the school will be examined for neurotic tendencies which might interfere with school progress and social adaptation.

When this day arrives, such children will be sorted out upon the basis of test scores and analyses and segregated in special rooms, provided with special curricula, and taught by specially trained teachers. The school social service worker will contact the child's family and attempt to iron out whatever difficulties may exist in the home configuration. The school physician and dentist will bring about physical rehabilitation if necessary, while the psychologist will observe the child's behavior from week to week, noting improvements in behavior and determining the proper time for a return to the normal group.

At the present time the teacher may prove instrumental in preventing a certain amount of later adult maladjustment by familiarizing herself with available techniques in this field and acquainting herself

with the characteristic manifestations of neuroticism. Strict discipline grows out of a misunderstanding of the syndrome and is strongly contraindicated, since it invariably defeats its purpose. Tactful and sympathetic interest in the child may lead to ultimate adjustment. It should be remembered that the unruly child, in many cases, is an emotionally disturbed child who deserves careful attention.

The utilization of reliable psychoneurotic inventories, coöperation between parents and teachers, emphasis upon the personality adjustment of the teacher herself, and the presence of a school psychologist or trained mental hygienist to whom problem cases could be referred would aid materially in reducing the number of neurotic and maladjusted children in our schools.

IMPROVEMENT IN READING AS SHOWN BY STANDARD TESTS

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During the past year (1932-33), we have been making a special drive for improvement in reading in the Summit public schools. The need for this was first brought to our attention by standard tests given in November, 1931, which showed that our median was two months below the standard. The Junior High School principal complained that pupils were handicapped in their work, because of insufficient reading ability. Our median mental age is higher than the average and we felt that our median in reading should be higher also.

Each teacher was given a report which showed the rating of each of her pupils. Diagnostic and remedial measures were suggested and much interest was aroused. A decided improvement was shown within a few months. This was an incentive and in September, 1932, teachers began their work with the definite purpose of helping each pupil to increase his reading ability as much as possible. The results in all classes have been most gratifying, even surprising.

Because of insufficient clerical help it is impossible to give achievement tests to all classes; therefore we give them in grades 2, 4, and 6 only. Grade 2 was given the Metropolitan Test in March; grades 4 and 6, the Modern Achievement Test the first week in April. Grades 3 and 5 were given reading tests earlier in the year and those who were below standard were retested in June. Grade 1 was given a Gates Type 2 in February and Type 3 in May. In this report we will omit grades 3 and 5, since our test results in these grades are less adequate. Last year we did not give the same tests, so that the results are not exactly comparable, but they are sufficiently so for practical purposes.

GRADE ONE

In May, 1932, on a Gates Word and Phrase Test, the median was 2.3. In May, 1933, on a Paragraph Meaning Test, the median was 2.4. The range is very much higher. One hundred fifty-one first grade children are reading on second grade level, or above, as compared with 117 last year. Of these, 39 are reading on third grade level; last year there were only 18. At the other end of the scale we find only

6 children in all first grades who have a grade standing in reading of 1.5, or below, that is, children who are 4 months or more retarded. Last year there were 36 such children. Expressed in the form of a table, the figures are as follows:

	Children Reading on the Level of		
	Grade 3	Grade 2+	Below 1.5
May, 1932	6	117	36
May, 1933	39	151	6

Thus we find that although the median is only one month higher, the range has greatly improved. We now have very few children at the low end of the scale and a greater number of children who are reading on second and third grade level. It must be remembered that we are comparing two different tests, but of the two the Paragraph Meaning is probably the more difficult.

CHRONOLOGICAL AND MENTAL AGES

Last year we found that a large percentage of our failures were among immature children who entered grade 1 at too early an age, either mentally or chronologically. Therefore, in considering promotion from kindergarten to grade 1, we took this matter into consideration.

In February, 1932, the kindergarten teachers were given a demonstration and instruction in administering the Binet Test. They took up the work with enthusiasm and now each child is given an abbreviated form of the Binet Test during the spring. Doubtful cases are referred to the psychologist. In addition to this, each teacher was provided with the Cleveland Kindergarten Test in the fall, for the purpose of studying the children and discovering where they need special help. All new children who enter in the fall are tested by the psychologist before they enter grade 1.

Last year 76 children entered grade 1 before they were 6.0 chronologically. This year there were only 44. Unfortunately we cannot compare figures for mental ages, because we did not have adequate intelligence tests for all children last year. This year we have 34 children who were below 6.0 mentally in September. Exactly one-half of these were below standard in May. Eight others are just on the border. The majority of these immature children have found the work difficult and have been under considerable strain.

It is evident that more careful selection of children for first grade has materially helped to raise the standard of achievement and to decrease the problem of maladjustment. Our first grades this year have a higher standard in reading than in any previous year. The effect of this is bound to be felt in the succeeding grades. In considering promotions for another year, we have made still further effort to prevent underage and immature children from attempting work which is beyond them.

It is recommended that next year special attention should be paid to oral language and vocabulary.

GRADE TWO

Last year we gave the Stanford Primary Achievement Test in grade 2. This year we used the Metropolitan Achievement Test. The results of the reading in the Metropolitan Test are as follows:

Completion	3.6	Vocabulary	2.6
Paragraph	3.3	Average	3.2

Since the paragraph reading is the longest and most important part of the test, we will consider it first. It compares very well with the paragraph meaning test in the Stanford, on which we had a median of 2.6 last year. With our present median of 3.3, we are seven months in advance of last year. This is a big gain for children of

this age. Carrying the comparison still farther, we find the following results:

	Children Reading on the Level of		
	Grade 5	Grade 4	Grade 3
March, 1932 .	1	13	55
March, 1933 .	13	37	116

Thus the total number of children reading on third grade level or above in 1932 was 69, or 30%. In 1933 it was 166, or 73%. Only 3% are reading on first grade level, as compared with 10% last year.

In the completion test the scores run even higher. This appears to be an easier test. The median is 3.6.

In the vocabulary test the median was only 2.6. This shows the same trend as vocabulary tests in other grades and emphasizes again our weakness in this respect. As the test is constructed, it seems a little difficult for young children to follow across the lines.

The vocabulary test tended to lower the average median for the three reading tests, making it 3.2 or one point lower than the paragraph test. No second grade class made a median of less than 3.0. This is a splendid record and augurs well for the future. Children promoted from second grade with such reading ability should do well.

CHRONOLOGICAL AND MENTAL AGES

This year the number of immature children in the second grade has been reduced, as shown in the following table:

	Median C.A.	*Median M.A.*
March, 1932 ...	7.8	8.0
March, 1933 ...	8.2	8.7

This increase, particularly of M.A., has undoubtedly helped to raise the standard of accomplishment in second grade. We still have some children in all grades who are too immature to accomplish what is expected of them. The number of such children should be reduced to a minimum. By doing so we shall not only raise our academic standing but, what is far more important, decrease our cases of maladjustment.

GRADES FOUR AND SIX

Since grades four and six were given the same tests, the results will be considered together. These classes were given a Modern Achievement Test in reading in October and again in April, so that we have an exact measure of improvement during those seven months.

Comprehension. The median gain for grade 6 was 1.0, for grade 4 it was 1.2. This is nearly twice the gain expected. This test begins with fairly simple material but gradually increases in difficulty, until quite an advanced vocabulary is involved. Since tests have already shown that vocabulary is one of our weak spots, we naturally find that children have more difficulty in comprehension than in speed. The median, however, in grade 6 is 8.0, over a year above the standard median. In grade 4 it is 5.0, three months above the standard.

Last year we used the Stanford Achievement, so that the results are not exactly comparable. The paragraph meaning, however, compares very well with the comprehension in the Modern Achievement Test. The median in paragraph meaning in grade 6 in March, 1932, was 6.7, as compared with 8.0 in the comprehension test this year. According to these figures, the sixth grade of 1933 is more than a year in advance in reading over last year's class.

Speed. The median gain in speed in grade 6 was 3.1. In grade 4 it was 1.0. In some classes the gain was very striking. One sixth grade gained five years in speed in seven months, another, three years. The test consists of fairly easy material of about equal difficulty, so far as vocabulary is concerned. All sixth grades made a

better gain than fourth grades, probably because more advanced readers are capable of greater speed. Speed seems to be largely a matter of concentration and practice, once good reading habits have been formed.

The question is sometimes raised whether pupils who read fast also read accurately. Research work has shown that, generally speaking, speed and accuracy go together. The median per cent of accuracy was 97 in grade 6 and 95 in grade 4.

SPECIAL EXPERIMENT IN READING

One school presented a particular problem. The children had been poorly classified. They were largely from foreign-speaking homes. The majority were Italians but there were also Poles, Armenians, Negroes, Irish, and Americans. In October the median in comprehension in grade 6 was 4.8. The range of ability was from 2.6 to 8.9. The median speed was 5.0 and the range from 3.3 to 7.3. Obviously the reading for social studies became a problem in a group of this type. Grades 5 and 4 presented similar problems.

It was decided to promote the children as usual, but to regroup them for reading in grades 4, 5, and 6. They were divided into three groups, according to reading ability, and given special instruction for a forty-minute period each morning. The first group of 28 included the best readers, but the median was only 4.9. Group 2, with 29 children, had a median reading ability of 3.7. Group 3 included 21 children with a median of 2.2.

The first group was given much library work. They wrote book reports which were carefully checked. They also worked for improvement in English. The lowest group received help in the mechanics of reading and in vocabulary. They were given much easy, interesting material. The work of the middle group was likewise adapted to its needs.

Within each group were three or four groups. Individual help was given within the groups. In general, two days a week were devoted to remedial work, two to reading for appreciation, and one to reading chosen by the pupils. Comparison of the Modern Achievement Tests, given in October and April, show the following results:

READING COMPREHENSION

Group	*October Median*	*April Median*	*Gain in 7 Months*
1	4.9	7.2	2.3
2	3.7	6.7	3.0
3	2.2	4.7	2.4

READING SPEED

Group	*October Median*	*April Median*	*Gain in 7 Months*
1	5.0	8.7	3.7
2	4.1	9.5	5.4
3	3.4	5.3	2.1

In the sixth grade last year, out of 21 pupils only 7 (33%) were above standard in reading comprehension. One pupil had tenth grade ability, two had eighth grade ability, and two, seventh grade ability. No speed test was given. This year, out of 21 pupils 17 (60%) are above standard in comprehension. One pupil has twelfth grade reading ability, one has tenth grade, four have eighth grade, and eight, seventh grade ability. In speed, 25 out of 28 have tenth to twelfth grade ability. Of the remaining three, one has eighth grade, one seventh, and one fifth grade ability. The chief obstacle to even further improvement is lack of vocabulary. Most of the children have a poor background of English. The teachers are working all the time to remedy this deficiency.

The experiment has filled a definite need in this particular school. It may be that after a year or two, when reading standards have been sufficiently adjusted, there will be no need for its continuance. In the

meantime it is proving a valuable stimulus to both teachers and pupils.

PUPILS BELOW GRADE

In all sixth grade classes we have 33 pupils out of 200 (16%) who are below the level of grade 6. This is not a large proportion, especially when we realize that at least one-third of these are cases of borderline mentality who, although they are capable of improvement, can hardly be expected to keep up with the class. Many of them have gained a year or more since last October.

In grade 4 we have 44 pupils out of 194 (27%) who are below standard. This is a larger proportion than in grade 6, but we have a longer time to work with them. We hope that by the time they reach grade 6 the percentage will be greatly reduced.

SUGGESTIONS FOR FURTHER IMPROVEMENT

A questionnaire on reading which asked, "What are some of the common mistakes in the teaching of reading?" brought out the following suggestive criticisms from the principals:

1. Tendency to work with groups, rather than with individuals.
2. Failure to appreciate the differences in background among children in same group.
3. Tendency to begin the teaching of reading before children have sufficient reading readiness.
4. Failure to appreciate the limited vocabulary of many children.
5. Lack of preparation for the teaching of reading among upper grade teachers.
6. Lack of familiarity with the fundamental learning processes.
7. Hesitancy of teachers to try out new methods for themselves.
8. Tendency to use books and materials beyond the child's level.

We have already improved in these respects, but it is well for teachers to study this list and see wherein they need to make further improvement during the coming year.

The following are some suggestions for next year:

1. Individual work with problem children.
   Results this year show that we have done well with the majority of pupils. We have done well with some of the problem cases. There are others which have not yet been reached. These present a challenge. We should be able to find some remedial measure which will bring all pupils (except perhaps a very small proportion) up to grade or beyond.
2. Vocabulary is our weakest point. We should work continuously for improvement. It can be woven into all subjects. Children from foreign-speaking homes need it especially, but children from a more favored environment need it also. It has been shown that only those with a vocabulary two years or more in advance of their age have a reasonable chance of success in college. All classes, from kindergarten up, need to work along this line.
3. Remember that much easy, interesting reading on the child's level is the best single remedial measure.

MENTAL HYGIENE ASPECT

A less tangible but very important by-product of the emphasis on reading is the effect on the personalities of certain children. In almost every class are one or two children who have always been poor readers. Some of these children have good intelligence, others are mentally dull. In

many cases their deficiency in reading has produced a feeling of inferiority which manifests itself in various ways. Improvement in reading has given them a feeling of real accomplishment which has had a beneficial effect on their personalities.

Instances of this might be found in any school. It is particularly manifest in the experimental group of poor readers, most of whom have low intelligence quotients. In October their median in reading was only 2.2. In April it was 4.7, a gain of two years and five months. Many of them had a feeling of success for the first time in their lives. One boy who had been a discipline problem has recently given little trouble. Another had been doing well in arithmetic computation but was unable to read problems. Now he succeeds in arithmetic reasoning also. Another, who had always been unadjusted in school, is now much improved. His mother is pleased to see him reading the newspapers at home. These instances could be multiplied indefinitely. They show conclusively that even dull children are capable of great improvement if only the right kind of remedial measure is found.

Sixth grade children will go to junior high school in the fall better prepared than ever before to undertake the upper grade subjects. The majority of them have gained a facility which makes reading a pleasure. Many of them have also acquired a habit of using the public library to advantage. This is an important factor in "the wise use of leisure." Results such as these are far more important than any figures which can be put on paper.

THE BERKELEY COÖRDINATING COUNCIL

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Not many months ago a boy just grown to maturity was mixed in a social brawl, and with his pocket knife killed a man. This boy was well known to the schools, to the police, to the health and social agencies of the community. He had repeatedly been in trouble, was known to be anti-social and a serious danger to himself and to others in his environment. The dangerous nature of his behavior had been a matter of written record for at least six years. According to the best judgment of all who have given the case scientific study, this youth cannot remain free in society and conduct himself in accordance with social standards.

Another youth who has just reached maturity has been under our observation and study for eight or nine years. He is mentally capable but has shown little success or improvement in his school work. He has repeatedly been a truant; has a long police record for stealing, for drunkenness, and sex offenses; has been given treatment at the Health Center at public expense; has been in the Detention Home several times, and is now on probation. Those who have made a study of this case feel that there is little if any chance of rehabilitation. His career points directly to crime. He will soon be supported in some institution at state expense.

There is a family with which our agencies have been dealing for seven years. One parent is feeble-minded, the other psychopathic. One child is too young to be characterized yet. The oldest is now in San Quentin and four are being taken care of in institutions or homes at state expense. Each child of this family before it reached adolescence was repeatedly delinquent and became a state or county charge. The family has always required charity as a means of subsistence.

I cite these cases merely as illustrative. They are not simple, nor are they peculiar to our community. Every community has similar problems that must be attacked. They involve the schools, the police, charity agencies, the health service, and social relationships in public life. These illustrations all relate to juvenile delinquency. Can juvenile maladjustment be solved by work on the individual who commits the offense, or are other factors equally important and necessary corollaries?

Undoubtedly we must begin with the individual. His delinquencies must be stopped if possible. Possibly he should be punished. We must do something to him or for him. But why is he a behavior problem? What caused him to offend? We must, if we expect to reduce crime, study its causes. Give treatment—yes, the best we know how to give, then note the results. Often we know what should be done but we cannot do it. The problem reaches out into other relationships. One of these is the general public. What are the public attitudes in the community that affect the conduct of youth? What respect for law, for officials? What attitudes toward morals? Youth quickly take the cue from adults about them. Youth are influenced by the fashion. As a matter of fact, they grab the fashion and run away with it. But they choose that fashion which fits their own emotional interests.

Then there are economic factors that block us. In every community there are individuals, institutions, and industries that are supported by the money which youth spend. Dance halls, gambling places, bootlegging joints, amusement centers of doubtful value—many of these owe their existence to the spirit of youth in action with money to spend. Yes, economics and delinquency have a positive relationship.

Not only the public attitude and economic interests but political organizations and political groups complicate behavior. There is privilege, prestige, protection, camouflage, group pressure from local, state, or national politics. Not what are your deserts, but what your political pulls, are the factors which force themselves to the attention of all public officials. Those who work intimately with youth today realize that no amount of punishment of the individuals who commit crime will reach back into these hidden roots that influence and produce crime. When the searchlight is turned upon all of the causes of crime, it will be seen that the individual is often merely the tool of an influence more powerful than he.

To the study of the individual delinquent, the public attitude, the economic and political powers—to all the forces of the community that deal with the controls of youth—the Berkeley Coördinating Council twelve years ago turned its attention. This Council is composed of representatives of the five publicly supported departments in the city that deal with the welfare and adjustment of youth. They are:

Police Department
Public Schools—Research and Guidance Bureau
The Health Department
The Welfare Society
The Department of Playgrounds, Recreation, and Parks

The Council consists of the heads of the above-named departments, together with others whom these heads elect to membership. At the present time the additional members elected are the Police Woman, the Superintendent of Social Service at the Health Center, and the Assistant Director of the Bureau of Research and Guidance. The Council meets weekly for one hour as a deliberative body to discuss specific problems and to set up policies. The Council is voluntary. It has no official authority. It does not vote, except once a year to elect a chairman, nor does it have the power to authorize or to require any department to do anything. The chief of each department goes forth from any meeting fully responsible for his own department and free to do as he thinks best. But if he has presented a problem in the Council, he has had the judgment and the free discussion of the chiefs of all the other departments. He knows what they think, and he knows in what way they will be able to coöperate. They in turn are familiar with his problem and often are told what he intends to do. I cannot over-emphasize the fact that our Coördinating Council is a deliberative and counseling group. Our purpose is to become mutually conscious of the problems and policies peculiar to each department and of those that may be common to two or more of the departments. We deliberate, we coöperate, we educate one another, we become acquainted. We are wise enough not to try to dictate. If our Coördinating Council were made a requirement by the city charter, and we were forced to vote on interdepartmental policies, we would break up in a row, and would need the rest of the Police Department in addition to the Chief to settle our differences. As we are now organized, there has not been a serious conflict between the five departments represented during the twelve years of our service.

It is common, as we sit about the table, for a serious case to be shifted from the Police Department to the schools or *vice versa*. In fact a shift may be made from one department to any department in a better position to carry on. We have learned not to fear one another. We have learned that no department need fear for its own prerogatives.

Sitting about the council table every week is the authority to carry forward any action which is legally or socially feasible in the city of Berkeley. If a school adjustment is involved, the authority for action is there. If it is a problem of law enforcement, the Police Department is authority; if a matter of health either in school or city health, the responsible head is present. If there is need of clothing or food or financial help or home placement, the Welfare Society has the power. If it is a problem of social and community relation, recreation, or play, the chief of that department can act.

In addition to the necessary service which each department must carry to perform its functions from week to week, the Council sets up research projects to evaluate these services and to gather facts for the future. We locate all cases of feeblemindedness and insanity in the community, we study amusement centers and playgrounds. We make spot maps showing the location and nature of all sorts of crimes and accidents.

One project which the Council originated and has encouraged promises far-reaching results. Four years ago there was established what is called a behavior research and service clinic—in simpler terms, a counseling committee. This consists of a psychiatrist, a physician, a psychologist, and a staff of psychiatric social workers under the direction of the Bureau of Research and Guidance in the city schools. The most serious behavior problems from

the public schools are referred to this clinic. Careful examinations are made covering the nature of the behavior difficulty, the causes are traced as far back as possible, adjustments are made, treatments given, and the results recorded.

A scientific technique has been set up for this research and service which is too long to describe here, but which can be found in *School Life* for October and November of 1930. Several deductions can be drawn at this time, after four years of study, which we believe are of very great significance. One or two dogmatic statements may interest you now. Misbehavior among children is not a matter of I. Q. All ranges of intelligence participate in crime. Misbehavior is not a matter of social position nor of wealth. Misbehavior is not a matter of physical condition. Misbehavior is always a complex problem having its roots in several causes, one of which usually predominates. Misbehavior is invariably accompanied by emotional stress and strain, and is always traceable back to conflict and mismanagement or misunderstanding by adults.

The findings of this behavior research and service clinic are consistently reviewed by the Coördinating Council. They become the basis of many changes in the management of youth of the community. During the past four years more than a thousand individual youths in Berkeley, embracing many of our most difficult problems, have been studied and treated. The large majority of these have been brought into line for entirely acceptable social behavior. With some, of course, we have failed. We have found some situations which we believe we could easily solve if our hands were not tied. As I have stated above, we frequently see what we should do, but cannot do it because of social, economic, political, or other factors beyond our present power to control. But we are making positive recommendations in written form, even when we know they cannot be followed, and we are filing these for future reference. Ten years from now, or twenty years, or fifty years, these records should be more valuable than they are at present. We shall leave a basis for those who follow us to build upon. The case records which we are keeping are not only for ourselves, they are for future generations. The leaders in the future in our community will be in possession of better facts than we possess. We are collecting these facts in our records, both of our successes and our failures. Perhaps the very failures we have made will, in the end, prove to be the most valuable contributions for the future.

Our Coördinating Council is not laboring under any misconception about the tremendous changes which we may bring about in our immediate present. We are not expecting to revolutionize the behavior of youth in our city. But this we know, there is no other organization or group in the city which has the opportunity to see the behavior of youth, and which is forced more positively into action with the behavior of youth, than is our group of officials. We are focusing the best thinking which we can find upon our problems. We are combining our forces, pooling our intelligence and our resources, we are making progress. We present our experiences freely to other cities, hoping that they may have some suggestive value.

USE OF TESTS AS A MEANS OF DISCOVERING CAUSES OF FAILURES IN HIGH SCHOOL

B. M. DRESDEN

North Division High School, Milwaukee, Wisconsin

Most pupils entering the ninth grade come to the North Division High School equipped with two kinds of records: (1) academic grades; (2) some kind of standardized and intelligence records. All the tests were undoubtedly administered honestly; but, as a large percentage of the teachers were untrained or only partially trained in administering tests, especially intelligence tests, the results reported are not always reliable.

In addition to this, we must realize that the children are working now under vastly different conditions; they are in strange surroundings; they have many teachers instead of one or two; they work with pupils of more mature minds; they have longer recitation periods; they have more homework; they have no effective technique of study—in short, they are not acclimated to the new working conditions. As a result, when the first month's reports are made, it is found that there is a large number of failures. This number gradually decreases, if a proper study of the failures is made for the purpose of discovering the underlying causes and finding remedies.

Sometimes pupils become discouraged and plan to leave school as soon as the legal working age will permit. They plan to leave "under fire," with the stigma of failure attached to them at the most impressionable period of their lives; they have never become possessed of the attitude of success; they have never learned that most of the failures are due to conditions which are surmountable under proper guidance.

This brings us to the question, the answer to which will go a long way toward solving the problem of the failing student: *What is failure?* As it is usually interpreted, a child is called a failure in some subject if his grade does not reach an arbitrarily fixed limit, usually seventy per cent. There is, however, another definition of failure which tells far more, namely: The child may be said to have failed *when he has not reached that result which his native and acquired abilities indicate he should reach.*

If this statement is true, and experience in the North Division High School of Milwaukee seems to indicate that it is true, then A's grade of 60 may be far better than B's grade of 75. The stigma of failure, therefore, should not be attached to A. Instead, there should be a revision of his program; he should be placed in a class where he is most likely to succeed, even though it involves a change in his course of study. The remote values should be subordinated to direct values; abstract material should be changed to concrete material; generalized knowledge should become special or applied knowledge; cultural values should be changed to vocational values. In short, we should free ourselves from preconceived ideas of what high school training should be; we should realize that we are dealing with plastic minds and not with bricks and mortar or

books and laboratories; we as teachers need to *get* the attitude of success as well as to instill it in our pupils. Our standards need to be readjusted; we need to realize that our duller pupils have just as great a moral and legal right to a secondary education that is adapted to their needs as have their brighter brothers and sisters.

There is one remedy for maladjustment which may be suggested at this point. Pupils who fail to reach the 70 per cent goal often, as stated in a previous paragraph, are doing all their native abilities permit them to do. These children can frequently do better work if they are placed in a vocational class. Distinctly vocational schools are organized usually only in the larger cities, but practically every high school has one or more vocational classes—shop, household arts, mechanical and other drawing classes, and so forth. Placing the failing pupil in one or more such classes is quite likely to give him a chance to undertake work he can accomplish. The result is likely to be that he will lose the feeling of failure and will gain the power to accomplish something worth while, and thus attain the ability of better concentration in his non-vocational classes with possible success in them.

We must bear in mind several other causes of so-called "failure." The maladjustment of the pupil to the school and to his program is not usually the only trouble. School failure may point to a multitude of other situations which call for close study. There may be a home problem—foreign language or foreign customs and ideals in the home; economic pressure for adding to the home purse; no suitable place for study. There may be wrong associates; wrong or too many amusements and other social activities—all these elements call for guidance not only of the children but often of the parents.

To arrive at the causes of failure, there must be a thorough study of the mentality of the child and of the social conditions under which he is living. The first of these is the work of the trained psychologist; the other, the work of the vocational adviser.

THE TESTING PROGRAM

In the light of the above-named conclusions, the North Division High School of Milwaukee introduced a testing program about four years ago.

From the very beginning it was seen that two entirely different groups of pupils had to be considered. The first group was composed of about 300 freshmen entering each semester. They had been given, near the end of their eighth grade, the Kuhlman-Anderson or some other test; the scores are on file in the high school office. These pupils came from some twenty different public and parochial schools, each with its own ideals. It was felt that some uniform standard of judgment had to be found in order that the pupils might be given a program which would be most likely to insure success. It was, therefore, decided to place them all in one group and to administer to them the National Intelligence Test, Form B. From the scores obtained, the percentile rank of each child was computed. Teachers were told the names of the pupils in the lowest quartile and they were asked also to give them closest care and such individual help as might be needed. Teachers were also told which pupils were in the highest quartile. Much reference and supplementary work was to be expected from them.

The second group was composed of those who had been in the high school for some time and who had two or more failures (grades below 70) charged against them. This group was given the Otis Classification Test to determine their degree of mentality, their grade status, and their index of effort. This test was chosen because it

seemed to produce more statistical data than any other known to the examiner. As it appeared advisable, a few members of this group were also given the Stanford or the Herring Revision of the Binet Tests. The scores obtained, however, are not used exclusively in forming judgments. Teachers' judgments on scholarship, industry, initiative, reliability, coöperation, cheerfulness, courtesy, and apparent general intelligence were obtained. Home and other social conditions were also ascertained. The combination of all these data formed the basis of judgment as to the cause of the failure and as to the remedy which might prove most successful in curing the trouble. These tests are changed from year to year to prevent carry-over, or to allow the use of promising tests which come to the author's attention.

Looking back over the year's testing, the examiner feels that too much attention was paid to the I.Q. and that elements other than intelligence were not considered as fully as they should have been. We realize that a high I.Q. does not necessarily insure success, nor does a low I.Q. always indicate failure. Professor Ryan, of the University of Wisconsin, has recently developed a method which uses these non-intelligence data. By his manner of using the regression line, the child's plus or minus disparity can be read off easily and the influence of the elements other than intelligence can be determined readily even by a teacher with a minimum of test training and practically no statistical knowledge. The writer has tried out this new method in a limited way. His conclusions are so favorable that he intends to use it this year to supplement the method used last year.

CASE STUDIES

We have discussed thus far the real meaning of the word "failure," the use of tests in the study of failures, and we have given an outline of a testing program which has been in school use for a year. Let us now study a few cases to show what has been actually accomplished in the study and cure of failures by tests.

G. M. has a C.A. of 14 years, 2 months. He has been given a Kuhlman-Anderson and a Terman Group Test in the grades. His work in the 9B grade was so unsatisfactory that it was deemed advisable to give him a Stanford Binet, which resulted in a M.A. of 11 years, 6 months. A careful social and health study revealed several significant facts: His father is a Greek, his mother a Czecho-Slovakian. About half the time his mother's language is used at home.

The Snellen Eye Testing Card revealed that the boy had considerable eye trouble, probably myopia and astigmatism. He has but little control over his emotions, being somewhat of the hysterical type. As a result, he is not very dependable. His father was called in for a conference. He agreed to have the boy's eyes looked after and he is now under treatment. There is probably but little hope for a successful high school career. Not enough time has elapsed to show whether all this work will lead to better marks.

W. K.'s C.A. is 15 years, 6 months; his Stanford Binet M.A. is 15 years, 8 months —practically normal. He should be able to do normal work in his studies. He was, however, doing work below normal. A study of his home conditions was clearly indicated. This study showed that one child in the family is deaf and dumb. His mother had been very ill and had to undergo a severe operation. The strain upon the boy was very great. Another difficulty was discovered to be frequent movings of the family; in the eight grades he attended six schools in widely different parts of the city. A conference with the

boy, in which all these facts were laid before him, resulted in his promise to do better work. Although too late to be fully effective during the current semester, a considerable improvement could nevertheless be noted.

R. K.'s C.A. is 16 years, 6 months; his Stanford Binet M.A. is 12 years, 1 month; his National Intelligence Test M.A. is 12 years, 6 months. The tests show that he is a very slow thinker. He has an exceptionally large vocabulary as shown by the Stanford Binet, but he was very slow in giving the called-for meanings of the words. He has four siblings; one brother is in this school and is also very irresponsible. His father owns a small music store. The boy shows no special interest in anything: "I shall probably not finish high school; I can't see any use in it. I'll probably go into my father's music store or maybe I'll do story writing for a pastime." His work in English shows his absolute inability to do the latter work, and his lack of vocational-mindedness proves pretty conclusively the futility of his trying the former. He is undoubtedly a problem which no public or parochial high school can solve. Only some special school can handle his problem, but the family's limited means seem to preclude this method. He will undoubtedly have to go to high school, failing most courses and passing a few until he is ready to go into some unskilled labor job.

F. S. and H. S. are twins who are being brought up by their grandmother; she adores them and has but little control over them. They are personally attractive boys, about 15 C.A. Their tests showed them to be practically normal. An interview with them is beginning to produce results. While they are not yet "out of the woods," they are showing decided improvement and we look forward very hopefully to this coming school year.

The following case differs very materially from the preceding ones. R. T. had consistently high grades, ranging from 90 to 95. There were some things, however, which seemed awry. He was given a test, which showed an I.Q. of 127. The boy had a very unhealthy pallor; he appeared to be very nervous; he failed to join any school organization; he seemed to court solitude. The test showed his Index of Effort to be 117, indicating that he was making a tremendous effort to get high marks—an effort much greater than was warranted by his I.Q. of 127. Conferences with the boy did not seem to give us any light on the situation.

His father was called in. We found that he was delighted with the effort we were making for the boy and he was most anxious to coöperate. He told us that the boy was acting strangely at home; he did not play with the others; he was constantly cold and wanted to sit close to the heater, even on warm days. He would eat no meat and no vegetables—nothing but hard-boiled eggs. He got up frequently at 2:30 A.M., only to walk about his room. His eyes were shifty and staring. The parents feared that the boy was becoming insane.

Other conferences were had with the boy, until six of them had taken place. Gradually he became interested in what he was told about himself, but he clung to his unsocial attitude for some time. He was told how little value lay in his high grades and how almost impossible it was for him to make a success of life, unless he could mingle with the rest of the world. He was finally persuaded to join a school organization. His father now reports a gradual change taking place in the boy's attitude toward life and everything seems to indicate that the unsocial attitude of the boy is gradually disappearing and that he is becoming normal.

The above are only a few cases selected from approximately 500 who were tested last year. They show how the tests were used to combat the "below 70%" failures. They show how social data were used in conjunction with the test. They lead us to believe that the way to cure failures is to diagnose the causes and that tests of various kinds and social study are the first steps in the process.

THE TEACHING OF INTEGRATED PHYSICAL SCIENCE IN THE WEST VIRGINIA UNIVERSITY HIGH SCHOOL

GEORGE A. FEDERER, JR.

University High School, West Virginia University, Morgantown

"What is meant by integrated physical science?" is quite often asked by teachers. By this title the University High School refers to the teaching of science in the eleventh and twelfth years of high school from the standpoint of problems that involve both chemistry and physics. In other words, the general science idea as conceived of in ninth year general science is carried into the junior and senior years of the high school course. "Oh, yes, the idea is to make science in the junior and senior years easier, or, in other words, to take the work out of science," some will say.

Not so. No one has ever been able to take the work out of science. If one compares a unit of work, of approximately three weeks, which is centered around problems of the integrated type, with the work that is covered by following some college preparatory textbook for three weeks, it should be an easy matter to decide whether the work of the problem type is less difficult.

The integrated physical science idea is nothing more nor less than the idea that Dr. Harold Rugg of Columbia University has worked out in social studies. Some educators have gone so far as to say that if science teachers continue to teach chemistry and physics in the junior and senior years in high schools by making use of the same type of subject matter that has been employed for the last ten years, these two subjects will be dropped from the curriculum. The number of pupils registering for physics in the high schools in West Virginia offers sufficient proof that things are pointing very much that way. Upon looking carefully into the subject matter of most chemistry and physics courses, they are found to be "lacking in educational vitamins." What are we going to do about it? The teacher can get a good suggestion by looking over the recent outlines of Dr. A. W. Hurd, of Columbia University Institute of School Experimentation, and comparing them with some traditional textbooks. It is very evident that Dr. Hurd has given some excellent suggestions for new content in science courses. In addition to this, his experiments[1] would enlighten the teacher as to why he has introduced such a radical change in the teaching of science. To put it in other words, authorities have all been agreeing for many years that the type of science should be taught to the high school pupils which will aid them in their everyday lives. This

[1] For description of these experiments, see *North Central Association Quarterly*, 5:485-489 (March, 1931).

idea of science education was accepted long ago but it is beginning to look as though the science teachers have not as yet heeded this philosophy as seriously as they should.

A few years ago a research student checked through a list of twenty pupils from a chemistry class. These pupils, who later graduated, were juniors and seniors in a high school that was representative of a cross-section of West Virginia. The members of this class have been graduated for about two years, and they are now engaged in the following occupations: 3 clerks, 1 waitress, 5 home work, 3 teaching (elementary school), 1 student nurse, 1 coal miner, 2 sophomores in a university, 2 students in a teachers' college, 1 housewife, and 1 office girl.

Suppose the teacher of this chemistry class had emphasized such phases of chemistry as solving problems, writing equations, the electron theory, and valence. How many would have profited by this type of course? Possibly the two who are going to the University, and there isn't any assurance that they will continue their studies. What about the other eighteen? Will the knowledge of the electron theory aid them in the store, the elementary schoolroom, the home, or the office? This does not imply that one should ignore the type of pupil who enjoys working with the theoretical phase of science, but the subject *can* be approached from the standpoint of everyday problems, and the problem thus approached will lead to the different phases of science.

The titles of some of the integrated science contracts used in the University High School were as follows:

I. What use do we make of carbon, hydrogen, and oxygen in our everyday lives?
II. What is the relation of science to the common processes in the home?
III. What is the relation of science to the automobile industry?
IV. How does science aid us with our work on the farm?
V. What is the relation of science to the industries of Morgantown?

In teaching these contracts they were divided into problems. For example, the problems taken up in the third contract, "What is the relation of science to the automobile industry?" were:

1. What does science have to do with the manufacture of steel that goes into cars?
2. What is the relation of science to the mechanics of the automobile?
3. What part does science play in the lighting and decorating of a car?

Instead of taking space for the whole contract in this paper, brief mention will be made of each problem. In the first one, exercises were carried out that would bring about an appreciation of the problems that the steel manufacturer is confronted with in manufacturing the steel that goes into cars. This not only involved a study of the manufacture of alloys, but physical problems were brought up as well. The student was asked in one exercise to explain how the manufacturer knew that the steel in the axle of a car would not break under a heavy load. In order to give the student some first-hand knowledge along this line, the instructor took the class for a visit to the laboratory of the engineering school of the University, which is on the campus. Here the students had an opportunity to see how materials are tested. In every contract the class aims to make a visit to some industrial plant or laboratory outside the school, where work is going on which is related to the contract.

The second problem was developed with unusual interest this year. One exercise under this problem asked how it was possible for gasoline to produce motion in a car. The boys who had had experience with automobiles took the lead in this part

of the work and exploded a gaseous mixture in a can to show how violent motion was produced when the lid was thrown off. However, this experiment did not mean much to some members of the class, the girls in particular. One boy asked if he might be permitted to bring a small gasoline engine into the laboratory in order to demonstrate its principle. Quite a problem arose in making the proper wirings and disposing of the exhaust. The experiment was successful, however, and the class had a rich experience. The most gratifying thing about the situation was the fact that the boy who brought the gasoline engine to the laboratory had not been any too active in the class before this time.

Some students who were not in the science class noticed the experiment and asked if they might have the motor for use in a play; they wanted to make a sound back of the stage that would resemble an airplane motor "warming up"! The boy who owned the motor, with the help of some other boys in the school, made the necessary connections on the stage. This leads the author to believe that integrated learning took place with the other pupils outside the science class when they used the motor in their play.

In the final problem of this contract the pupils were still confronted with exercises of an integrated nature, as was manifested when they worked on problems of wiring the lights for cars and charging storage batteries. While studying the colors and body lines of the car, the students integrated to the extent that they found problems arising that could be solved in the art class. It was not the original intention to go outside the field of chemistry and physics in this integration. However, the writer does not become alarmed if a problem begun in the science classes is carried over into other departments, since it is beginning to look as though students can learn very nicely by attacking a problem that takes them into all the departments.[2]

The written part of the contract is built around minimum essentials and the material that is assigned in the contract is seldom taken up for discussion at the group conference, unless the group makes a request for it. This is done in order that the contract may be enriched by visits to the industries that are related to the contract.

One can readily see that the contract is not confined to chemical problems alone but physical problems as well. Space does not permit a detailed explanation of the way in which the problems are taken up. Briefly, the procedure conforms quite closely to Dr. Morrison's[3] five steps in science type subjects.

Pupils in the University High School have been taught separate courses in chemistry and physics for a number of years. For the last two years, however, the integrated problem has been carried out.

Critics may say that this will play havoc with the child's success in college science. An experiment along this line showing the influence of high school subjects upon college success has been carried out by Dr. Harl R. Douglass,[4] of the University of Minnesota. In the future an experiment might be conducted in order to compare the college success of pupils who have had the integrated course in science with those who have had the straight chemistry or physics courses.

[2] A group of teachers in West Virginia University High School are now planning to run an experiment in 1933-1934 wherein a group of students will be given a unit for study and will work under the guidance of the teachers, disregarding departments.

[3] Morrison, Henry C., *The Practice of Teaching in the Secondary School.*

[4] Douglass, Harl R., "The Relation of Pattern Subjects to Scholastic Success in College." *North Central Association Quarterly,* 6:287-297 (December, 1931).

THE CLEARING HOUSE

A HISTORY PROJECT IN AN EIGHTH GRADE SOCIAL STUDIES CLASS

A socialized recitation was carried on about the problem, "Were the French or English Better Suited in the End to Win Supremacy in the New World?"

When the teacher assigned the problem, the pupils were told that any one or more of the following texts had valuable material on this topic: Adams, 63-67, 75-78, 90-96, 124-155; Beard, 59-80, 91-98, 119-139; Casner, 136-141, 145-178, 185-195; Rugg, III, 115-126, 159-196, 237-251; Tryon, L. M., 15-46, 51-72. They were also referred to a number of other books which had valuable material on the subject.

The following introduction was given by the teacher:

Up to the present we have considered the important struggle of the settlers with the wilderness to establish themselves permanently in the New World. There were limitless stretches of land to be cleared, shelter to be built, food to be secured, and crops to be grown. Through all this struggle wild beasts, wilder men, and the other enemies of civilization had to be met and conquered. This had been a continuous struggle from the time of the earliest colony settled in the New World. Two nations, England and France, emerged from the struggle and found themselves face to face with a very important situation. Both nations claimed and desired the same land, as well as the waterways in it. Which nation was going to win the struggle? Both claimed the land south of the Great Lakes, east of the Mississippi and west of the Appalachians (pointed this out on a map). Did both of them have just claims? The French had pushed eastward from the Mississippi toward the Appalachians and the English had moved westward from the Appalachians toward the Mississippi. So here they were, both claiming the same land, and both apparently having just claims. Who was going to win in the contest? All other things were forgotten in this new problem. Which nation was best situated to win? That is our problem. The situation became so serious that an Indian said to an Englishman, "You and the French are like the two edges of a pair of shears, and we are the cloth that is cut between them." Two nations are desperately after the "strawberry shortcake."

To state the problem again: "Were the French or English better suited in the end to win supremacy in the New World?" (This was stated by the teacher.) A brief time for thought was allowed before asking for answers. The answers were listed on the board in two columns: (1) The French were better suited, and (2) The English were better suited.

If no answer had been forthcoming the easy thought questions, already prepared, would have been used in order to establish the solution of the problem. The following is a list of questions which might have been used, and they are intended to lead the student through easy steps to the solution of the problem:

1. What did the location of the French settlements have to do with their lasting permanence? The English?
2. What did the population have to do with the lasting permanence of the French settlements? The English?
3. What effect did the manner of settlement have upon the lasting permanence of the French settlements? The English?
4. What effect did the relationship of the French with the Indians have upon the lasting permanence of their settlements? The English?
5. What effect did the system of government used by the French have upon the lasting permanence of their settlements? The English?

6. What effect did the religion of the French have upon the lasting permanence of their settlements? The English?
7. What effect did industries of the French settlers have upon the lasting permanence of their settlements? The English?

Reasons for the answers were asked for by the teacher and they were placed in the proper column.

The French were better suited.
1. Location of settlements.
2. Relations with the Indians.
3. Industries.
4. Purpose in settling.

The English were better suited.
1. Population.
2. Relations with the Indians.
3. Unity of the colonies.
4. Purpose in settling.

The teacher suggested that a consideration of religion and government might help in settling the problem. The class agreed and most of the students thought that the word "government" should be placed in the French column and that the word "religion" should be placed in the English column. The teacher then asked for justifications for each reason given. A brief time was allowed for thought before calling upon a pupil to answer any one of the questions asked. At the beginning of the discussion only those who exhibited strong interest were called upon. After interest had spread through the class, the teacher called upon pupils at random. When possible, the teacher called upon pupils in an order which kept the thought properly balanced. No pupils were consciously overlooked. Pupils asked each other questions throughout the discussion, involving the following terms: "Why do you believe so?" "Are you open-minded?" "What are the reasons for your point of view?" "Have you considered every side of the case?" and "What is your authority for your point of view?"

The teacher guided the class by seeing that discussions about the reasons were carried on in an orderly and systematic manner. The advocates of each side were allowed to give justifications for their reasons or to give reasons for objecting to the beliefs of their opponents. During the time the arguments were being advanced, the teacher endeavored to keep them so evenly balanced as to maintain a high state of suspense. Without distorting the facts, help was given as needed to the adherents of the losing side, by reënforcing their arguments or by finding and attacking the weak places in the arguments of the opponents. After all facts favorable to the weak or incorrect view were known, the advocates of the right view were allowed to speak without hindrance until their case was won, as they were able to carry it to this point. If they had not been able to do so, help would have been given to them by the teacher by citing facts that might have been overlooked.

The following conclusion was arrived at by the class:

The French seemingly had the advantage at first, but greater unity among the English and adjustments of Indian relations, joined with the advantage the English had because of their intensive agriculture and permanent homes, whereas the French were engaged mainly in fur-trading and had few women to help make permanent homes in the New World, and also the advantage the English had because of their self-government in the colonies as compared with the distant central form of government of France over her French colonies in the New World, would prove the English had the staying qualities to win supremacy in the New World.

A pupil asked, after the conclusion was agreed upon, "How did the English actually gain supremacy over the French?" The class was allowed to discuss the problem for a short time, and then they were

told by the teacher that that was their problem for the next day's work. They were told that they could find the answers in Adams, 97-98, 105-112; Beard, 96-108; Casner, 195-205; Rugg, III, 219-232; Tryon, L. M., 47-50. They were also referred to a number of other books containing valuable material on the subject.

The teacher made up and used extemporaneous questions occasionally. However, the fewer the number of questions asked by a teacher the better, and factual questions should be considered as banned. Always allow a brief period for thought before calling on anyone to answer a question.

Some important values that were gained by the students from this and other "open forums" were:

1. Ability to do active thinking "on their feet."
2. Ability to express themselves in a forceful and pleasing way.
3. Habit of courteous attention to and consideration of the opinions of others.
4. Attitudes of tolerance and open-mindedness.
5. Ability to carry on a discussion in a manner which was pleasing and caused the pupils to use a vigorous interplay of minds.
6. Attitude toward discussions which brought about a cool and critical discussion as a method of solving problems.
7. Careful thought upon a point before venturing a statement.

Roy H. Norman,
Principal, Highgrove School,
Highgrove, Calif.

A PROJECT IN ENGLISH COMPOSITION

Let us assume that the teacher of seventh year English has gone to her supervisor for suggestions regarding a project in composition. In the informal conference that ensues, something like the following conversation might take place:

Teacher: I am interested in attempting a project in composition with my 7B class. I have never attempted anything of the kind, and should like some suggestions regarding it.

Supervisor: I assume that you have a general idea of the aims and nature of a project.

T: As I understand it, a project is a general activity around which the various specific activities of the class are to center, as far as possible.

S: Yes, that is true, as far as it goes. It is also requisite that the activities shall as nearly as possible approximate a life situation. The pupils should at least *seem* to institute it themselves. The purpose must be very clear in their minds, and the plans need to be very carefully made. The teacher must have her aim most definitely in mind, as this may be quite different from that of the pupils. Unless she knows exactly what she hopes to accomplish by means of the project, a great deal of time may be lost, even though the pupils' aim may be accomplished.

T: Do you feel that the project method is on the whole a desirable method of teaching?

S: It certainly "provides favorable opportunities for learning," as far as motivation, self-activity, and satisfaction are concerned. Drill, which is only a means to an end, not an end in itself, may be neglected. However, the fact that the practice takes place in a natural setting, or in the field of use, makes it more effective than mere repetition.

T: What projects would you suggest for my 7B class? The pupils are greatly interested in current events, history, and literature, but seem to regard composition—particularly written composition—as drudgery.

S: Some of the projects that other teachers have used with considerable success are: a play to be produced in assembly; a class newspaper or magazine; correspondence with children in other countries, or in other parts of our own country; health, safety, anti-litter, or fire prevention campaigns, involving the making of speeches in assembly and the preparation and distribution of literature to other classes of the school.

T: I am sure my 7B's would be enthusiastic over any of these that you mention. Since

they are so much interested in current events, I think that the idea of a class newspaper would have the greatest appeal to them. In fact, I think I could get them to suggest the idea themselves with so little prompting from me that it would seem to be self-initiated.

S: That would be most desirable. Would you like any specific suggestions for carrying out this project?

T: That was really my purpose in coming to you.

S: The steps in a project are purposing, planning, executing, and judging. In your initial discussion with the class you will lead them to decide the nature of the project they wish to attempt. Perhaps a suggestion made in outside conversation with some member of the class would have the desired effect.

Once that step is accomplished, the planning is in order. The class may decide such questions as: how often to "publish" the paper; what to call it; what "columns" it shall have, such as foreign news, political, society, school and class, literary, etc. Another phase of the planning will involve the selection of editor-in-chief, editors and critics for the various "columns," each of whom may select his assistants.

The executing of the project may continue throughout the term. If the children are really interested they will gather data outside of school, during library periods, and at various odd times. If you wish you may allow them to write their contributions outside of class, using the class period for discussion and criticism. Unless, however, they have acquired considerable facility in the mechanics of composition, which I surmise they have not, since you say they consider written composition mere drudgery, it will probably be advisable for you to follow some such plan as this. Devote one class period to the planning of their contributions, allowing some to outline orally what they intend to write, others to prepare written outlines. Have the actual writing take place in another period and devote a third period to discussion, correction, where necessary (call it proof reading if you wish), assembling and preparing the newspaper for display.

Judging should be a cumulative process, and each issue should be evaluated, not only on its own merits but by comparison with its predecessors.

T: I am sure the children will consider this activity quite the opposite of drudgery. Perhaps, if it is a success, we can undertake a more ambitious project later, such as a school magazine.

S: I hope the project will realize our highest hopes for it. Remember, definiteness of aim and careful planning will overcome the chief danger in this method, that of wasting time. I shall be interested in watching its progress, and in talking over with you any problems that may arise.

KATE P. BISCHOFF,
P. S. 29, Brooklyn, N. Y.

EDITORIAL COMMENT AND REPORT

SOCIAL-ECONOMIC GOALS

The report of the committee set up by the National Education Association to formulate a statement of social-economic goals of America commands respect. The committee was appointed in the autumn of 1932 and presented its findings in July, 1933. The membership was notable—Professors Dewey, Marshall, and Ross, Superintendent Givens, Secretary Moore, and Dr. Kelly of the Office of Education, Chairman.

The report opens with a modest disclaimer of authority; the committee sought to emphasize certain issues specially important at the present time. The need for a restatement of national goals is then explained. Materialism has grown. Defeatism is common. There is a weakening of time-honored virtues. Our social maladjustments spring from loss of faith in our national ideals.

These are next restated in a series of ten goals, as follows: hereditary strength, physical security, participation in an evolving culture, an active, flexible personality, suitable occupation, economic security, mental security, equality of opportunity, freedom, fair play. Each of these conceptions is analyzed to show its meaning and importance. For example, desirable personality is said to involve initiative, discriminating judgment, flexibility of thought and conduct, individuality, and coöperativeness.

With regard to freedom, the committee says that while dynastic and hereditary tyranny have been largely overcome, domination by the more favored economic groups persists. The complexity of modern life makes personal freedom hard to maintain. Freedom of speech should be especially prized and guarded. Likewise, freedom to engage in the search for truth and in teaching should be preserved.

The report ends with a section on implications for education. It is recognized that an intelligent citizenry is indispensable to democracy. The schools must join with other agencies to increase the spread of civic ideals and civic intelligence. It is apparent that education must be universal in extent and application, in materials and methods, and in aims and spirit. The concept of universality is skilfully elaborated. Changes in college education are called for and ample support for the education of adults. The materials of instruction concerning social and economic issues must be largely drawn from current life.

The Association has made this admirable statement of American principles available in two forms. The report itself has been printed as a neat pamphlet and the report with editorial comments is included in the *Journal* of the Association for January. Reprints can be had at small cost. The report should be read by all teachers and discussed in teachers' meetings. It should be given wide publicity in the daily papers and in the magazines of discussion. Together with the Children's Charter and such statements as that promulgated by the Superintendents' Council of New York State, it provides educators with a set of criteria by which to evaluate present practice and a guide to educational reconstruction. The extreme radicals will be disappointed because it is not violently revolutionary. The reactionaries will detect here and there dangerous socialistic

leanings. The great majority will accept it as a noble and satisfying expression of democratic purposes.

J. F. H.

FOURTEENTH ANNUAL MEETING, DEPARTMENT OF SUPERVISORS AND DIRECTORS OF INSTRUCTION, AT CLEVELAND

TUESDAY, FEBRUARY 27

Ballroom, Public Auditorium, 9:30 a.m.

The President, MILDRED ENGLISH, presiding

TOPIC: THE USE OF SCIENTIFIC METHOD IN A PROGRAM OF SUPERVISION

The Scientific Method and Creative Supervision—BESS GOODYKOONTZ, Assistant United States Commissioner of Education, Washington, D. C.

The Scientific Method and Coöperative Supervision—ELIZABETH HALL, Assistant Superintendent of Schools, Minneapolis, Minnesota

The Use of Objective Measures in Evaluating Instruction—W. A. BROWNELL, Duke University, Durham, North Carolina

Presentation of the Seventh Yearbook—PAUL T. RANKIN, Supervising Director of Instruction, Detroit, Michigan

Evaluation and Appraisal of the Yearbook—CLIFFORD WOODY, University of Michigan, Ann Arbor, Michigan

Luncheon Meeting, Hotel Statler, Lake Room, 12:15 p.m.

The First Vice-President, LEONARD POWER, presiding

Discussion: Supervision and the Needs of Childhood—WORTH MCCLURE, Superintendent of Schools, Seattle, Washington

[Tickets, 85 cents each, will be on sale at the ticket booth at convention headquarters and should be obtained by members of the Department as soon as possible after arrival in Cleveland.]

WEDNESDAY, FEBRUARY 28

Ballroom, Public Auditorium, 9:30 a.m.

The President, MILDRED ENGLISH, presiding

TOPIC: THE REDIRECTION OF THE EDUCATIONAL PROGRAM TO MEET THE NEEDS OF THE PRESENT CRISIS

The Type of Instruction Demanded by the Present Educational and Social Crisis—ERNEST W. BUTTERFIELD, Commissioner of Education, Hartford, Connecticut

The Challenge of the Present Crisis for a New Type of Supervision—LAURA ZIRBES, Ohio State University

Self-Supervision by Teachers—A Practical Way to Help Meet the Need—WILLIAM T. MELCHIOR, Syracuse University, Syracuse, New York

Wise and Unwise Economies in a Program of Supervision—E. E. OBERHOLTZER, Superintendent of Schools, Houston, Texas

Business Meeting

Immediately following the program on Wednesday, the annual business meeting of the Department will be held.

Board of Directors

The annual meeting of the Board of Directors will be held on Monday, February 26. This will be a breakfast meeting at the Hotel Statler, Tavern Room, beginning at 7:30 a.m.

The Executive Committee will meet at the same place immediately after the meeting of the Board of Directors.

Membership Committee

The Membership Committee will meet at breakfast at the Hotel Statler, Tavern Room, on Tuesday, February 27, at 7:30 a.m. Miss Maybelle G. Bush, chairman of the committee, is in charge of arrangements.

REGIONAL CONFERENCES OF THE PROGRESSIVE EDUCATION ASSOCIATION

A regional conference of the Progressive Education Association was held at the University of Washington in Seattle, December 27 and 28. The main topics discussed were Creative Activities and the Principles of Progressive Education. There was a demonstration of classroom procedures, arranged for by Mr. W. Virgil Smith, Assistant Superintendent of Schools in Seattle; also an exhibit of creative work, in charge of Mr. Frank E. Willard, another Assistant Superintendent in Seattle. Panel discussions were carried on under the direction of Dr. Willis L. Uhl and Dr. Curtis T. Williams, professors in the University. Both high school and elementary schools were represented. The general committee in charge of the conference was headed by Mr. Worth McClure, Superintendent of Schools in Seattle.

The Progressive Education Association will hold a regional conference at Temple University, Philadelphia, February 9 and 10. The theme of the conference will be "Developing Social Responsibility Through the Schools." The list of speakers will include Dr. Eduard C. Lindeman, New York School of Social Research, Dr. Lois H. Meek, Dr. Jean Betzner, Dr. Thomas Briggs, Dr. John Childs, all of Teachers College, Columbia University, Dr. Harold E. B. Speight, Swarthmore College, Dr. Armand J. Gerson, Associate Superintendent, Philip A. Boyer, Director of Educational Research, and William H. Welsh, Director of School Extension, all of the Philadelphia public schools.

As a means of focusing the thought of the conference, the following statement of the "philosophy" of Progressive Education was sent out:

> The school should give all pupils the right and opportunity to develop social responsibility through a continuous reconstruction of experience. This development should reveal in children a definite growth in insight, in self-direction, and in resourcefulness in constructive, collective living. The school should be a social unit which is a component part of the whole cosmos of society, a place where children may not only acquire skills, get knowledge, and develop understandings, but where they may incorporate their learnings in a way of life. Pupils, in the school which assumes the responsibility of facing the needs of our immediate decade, should get practice in coöperation, experience in self-government, and participation in significant group enterprises integral with the customs and practices with which they are familiar. Given these conditions, the ideal pupil community, through wise guidance, should be engaged in applying child intelligence to the group problems of children, taking care that they are placed in a gradually ascending degree of complexity and that they are inherent in the problems of our present civilization.
>
> The greatest needs in education at the present time are: first, a clearer understanding of the perplexities of our civilization; second, the development of a sense of social responsibility for their intelligent and effective solution. All people engaged in education should definitely devote their attention to the task of developing social responsibility. This may be partially attained by including in the curriculum studies bearing upon specific difficulties confronting our American civilization and the complexities which bewilder our modern world, studies which give a more comprehensive understanding of the individual and the collective efforts to solve these problems.
>
> Not only should educators be concerned with guidance in the reading and in the investigation of the broad field of social relationships, they should also feel the necessity of applying the information gained to concrete situations. Students should be helped to develop social responsibility in feeling and in practice as well as in the acquisition of adequate information about social responsibility. The organization of discussion groups interested in social and economic problems, field trips to study industrial difficulties, housing conditions, or the ma-

chinery of government, the organization of radio forums, the forming of model leagues of nations, the encouragement of assembly programs which bring about a more comprehensive understanding of the foregoing ideas or any concrete practice which will place the necessity of a reformed social consciousness in a living situation should lead to a more direct participation in school and community life with concern for the general welfare. Thus a continuously creative reconstruction of the social experience of the child within the grade level of his intelligence, developed through reading and study and through participation in meaningful social problems, is the supreme task of modern progressive education.

THE ANNUAL CONVENTION OF ENGLISH TEACHERS IN DETROIT

At the annual meeting of the National Council of Teachers of English, held in Detroit November 30-December 2, the following officers were elected for the coming year: president, Oscar James Campbell, University of Michigan; first vice-president, Dora V. Smith, University of Minnesota; second vice-president, Roscoe E. Parker, University of Tennessee; secretary-treasurer, W. Wilbur Hatfield, Chicago Normal College. Other members of the executive committee elected were Walter Barnes, New York University; Stella S. Center, Theodore Roosevelt High School, New York City; R. L. Lyman, University of Chicago.

In his report Professor Barnes, retiring president, announced the formation of the following new committees: Committee on Radio, Max J. Herzberg, Newark, chairman, to present plans for utilizing the radio in school education in English; Research Committee, Dora V. Smith, University of Minnesota, chairman, to coordinate research activities of the Council; Poet's Readings Committee, Robert C. Pooley, University of Wisconsin, chairman, to have charge of making and distributing records of poets' readings in collaboration with Professor Cabell Greet of Columbia University; College Reading Committee, Atwood H. Townsend, New York University, chairman, which has already published the *Students' Guide to Good Reading* for college students.

Holland D. Roberts, chairman of the Public Relations Committee, announced that the *Guide to Play Selection*, an annotated index of plays for high school, college, and little theatre use, prepared by Professor Milton Smith, Columbia University, and sponsored by the Council, would be ready for distribution by D. Appleton-Century Company in February.

Miss Ida T. Jacobs, Roosevelt High School, Des Moines, chairman of the International Relations Committee, reported that a bibliography of material helpful to teachers and pupils on the subject of international relations and good will had been prepared. The committee will assist in the planning of special day programs designed to promote international understanding.

A significant action taken by the convention was the approval of the recommendation of the Photoplay Appreciation Committee, of which William Lewin of Newark is chairman, that units of instruction be introduced in the schools with a view to improving popular standards of taste in motion pictures and that courses in methods of teaching photoplay appreciation be included in the curricula of schools of education.

In his report on the National Council study of Usage, Dr. C. C. Fries of the University of Michigan declared that outstanding scholars of the English language repudiate the point of view which assumes as the measure of correct English traditional eighteenth century rules of grammar. "Usage," he said, "is the basis of all the correctness there can possibly be in language."

The study of newspapers and magazines in English classes, the utilization of local resources in the literature program, and the use of international relations to provide subjects for oral and written composition were recommended by convention speakers.

GENERAL SUPERVISORS OF MASSACHUSETTS

The General Supervisors of Public Education of Massachusetts opened their 1933-34 season with a most enthusiastic meeting in Boston on the afternoon of November 17. Discussion centered around the morning meeting of the New England Superintendents Association, at which the supervisors were guests.

The Program Committee presented plans for a three-year study of the coordination of supervisory agencies. This year the study will include the evaluation of supervision from the standpoint of the superintendent, the supervisor, the supervising principal, and the teacher.

On January 19, 1934, the president, Miss Helen J. Piper, invited the organization to meet at Lynn, where opportunity was given to visit schools. A conference followed, at which guest speakers took as their topics, "How the Superintendent Values Supervision" and "What the Supervisor Aims for in Supervision."

In March the meeting will be held at Amherst in connection with the Massachusetts Elementary Principals Association. At that time the round table discussion will be based upon "The Newer Emphases in Supervision."

The annual meeting in Boston in May will study the topic, "How the Principal and Teacher Value Supervision."

The three-year program aims at a thorough study of the points of strength to be gained and the weaknesses to be corrected by the general supervisor.

The organization is affiliated with the National Education Association and with the Massachusetts Teachers Federation. The officers are: president, Miss Helen J. Piper of Lynn; vice-president, Miss Mary Elizabeth O'Connor of Natick; secretary-treasurer, Miss Marion E. Remon of Melrose.

A LIST OF BOOKS FOR TEACHERS

The State Board of Education in Vermont, through the Commissioner, Mr. Francis L. Bailey, has provided the teachers of that state with a well-selected, classified, and annotated list of books for professional reading. Together with the more familiar and long-used headings appear such newer ones as adult education, guidance, and individualizing instruction. The names of publishers and the retail prices are included.

THE HORN BOOK

The delightful quarterly issued by the Bookshop for Boys and Girls in Boston[1] is called *The Horn Book*. It deals with books and reading for young people, is thoroughly well informed and charmingly written and printed. Numerous illustrations are reproduced from current books. A few new publications are reviewed at some length in each number and from time to time annotated lists of classified titles are included. In the November issue, for example, there are lists of picture story books, of books on animals, of good stories for younger children, and so forth. Teachers of children, children's librarians, and parents will find this periodical a useful tool as well as a pleasure in itself.

[1] The Bookshop for Boys and Girls, Bertha E. Mahony, Director. Women's Educational and Industrial Union, 270 Boylston St., Boston, Mass.

THE READER'S GUIDE

MATHEMATICS IN SECONDARY SCHOOLS

The Administration of Mathematics in Secondary Schools[1] is the third of a series which Professor Breslich has written. All three volumes are devoted to the teaching of mathematics in secondary schools. The first, *The Technique of Teaching Secondary School Mathematics,* deals with problems arising in the choice and use of general teaching procedure; the second, *Problems in Teaching Secondary School Mathematics,* is concerned with specific teaching problems. In his third volume Professor Breslich classifies administrative problems as they relate (1) to the direction and supervision of a department and (2) to the curriculum. The first part is intended to assist the supervisor in organizing the department of mathematics into a unified and coöperative group for the purpose of improving instruction. He discusses such supervisory functions as visitation of teachers, individual and departmental conferences, and the training of teachers. Several chapters are given over to the development of objectives, the formulation of a testing and measurement program, provisions for individual differences in ability, and remedial teaching. The second part, relating to curriculum problems, gives prominence to how content material should be selected for teaching purposes, the organization and distribution of the various parts of mathematics, like arithmetic, geometry, and algebra, how these parts are unified, their organization into teaching units, and the relation of mathematics to modern educational trends.

Professor Breslich's long experience not only as a teacher but as a supervisor qualifies him to speak authoritatively upon any subject related to the teaching of mathematics. This book will be of great value to experienced teachers of mathematics who feel the need of help as heads of departments of mathematics or as supervisors of mathematics in secondary schools.

Not only does Professor Breslich present his own views on many topics, but through a very thorough perusal of the literature of the field and by means of extensive bibliographies he has furnished teachers an opportunity for reading that will help them better to solve their problems and to improve their thinking.

It is to be regretted that a book of this type is necessarily placed at such a high price that in these times it will not be available to a large number of teachers. This is, in the last analysis, due to the fault of the teachers themselves, who often do not buy such books in large quantities even though the price be fairly low.

W. D. REEVE.

LIBRARY SCIENCE

There are those who maintain that not all professions can be subjected to scientific methods. But the educational world has proven that there is much to be gained from applying certain scientific methods to a subject which is not an exact science. In five short essays entitled *An Introduction to Library Science,*[2] Dr. Butler endeavors to define "the essential nature of science" as he conceives it, and to indicate how the

[1] *The Administration of Mathematics in Secondary Schools.* By Ernest R. Breslich. University of Chicago Press, 1933.

[2] *An Introduction to Library Science.* By Pierce Butler. University of Chicago Press, 1933.

"problems of the modern library may be studied in accord with its spirit and method." This is the first in a series of studies on Library Science to be issued by the Graduate Library School of Chicago University.

Dr. Butler, formerly of the Newberry Library, has a reputation for scholarship. His clear, concise statement of the problems will help to fashion the thinking of those concerned with library work—those already in service and students about to enter the field. Its appeal to the educational world will be limited to those who are interested in building better library service.

GRACE L. ALDRICH.

EDUCATION AS BECOMING

Mental furniture resembles the literal sort in that it needs frequent dusting off and periodic renewal. Dr. Taba has made this entirely clear in her *Dynamics of Education*[3] and has besides indicated the furniture which educators need to discard. Her thesis is that all thinking about education tends to be conditioned by concepts, assumptions, and methods which are no longer valid. This hinders us in our efforts to arrive at sound theories and to develop procedures guided by them. Her book is a philosophical analysis of educational psychology and its relation to education.

Of the six main chapters into which the work is divided, the first three are concerned with the presentation of experience as becoming and behavior as purposive. The author's sympathies may be guessed from her references to such scientists as Eddington and Jennings and to such psychologists as Köhler. Dewey is frequently cited. The author would get rid of the notions of the structuralists and the behaviorists alike and substitute for them the views of the modern biologists and the integrationists. The emphasis falls, however, on the individual rather than on social relations. Dewey's *Experience and Nature* is quoted rather than his *Human Nature and Conduct*.

The remainder of the chapters are entitled "Purposive Behavior and Learning," "Aims of Education," and "Curriculum Thinking." In these chapters there are occasional suggestions bearing rather directly on practice, as, for example, the point that many misconceptions in curriculum thinking are traceable to the segregation of curriculum planning from curriculum practice. Progressive education is credited with having broken away from the academic tradition by organizing learning around self-initiated and self-conducted activities called for by the immediate interests of the participants. A difficult task, however, is said to lie ahead, that of evolving standards and principles to guide such self-conducted activities.

Such a challenge as this to habitual ideas is very wholesome. Not all will approve the author's strictures on older conceptions or her advocacy of the new. She has at any rate provided the occasion for stock-taking. That she is substantially in harmony with the findings of the best contemporary biologists seems to the reviewer unquestionable. That she has selected the data which appeared most pertinent to the point of view she sought to establish, she would no doubt readily admit. In bringing philosophy, science, and education together in support of a dynamic rather than a static conception of nature, life, and learning, Dr. Taba has rendered an important service.

J. F. H.

[3] *The Dynamics of Education.* By Hilda Taba. With an Introduction by William H. Kilpatrick. Harcourt, Brace and Company, 1933.

AN INTERNATIONAL SURVEY OF NEW EDUCATIONAL IDEAS

A condensed report of the addresses delivered at Nice before the New Education Fellowship is very welcome. Few can find time to canvass all that was said and not many will care to do so. Mr. Rawson[4] has done a very skilful piece of editing and, thanks to him, we have the meat without the husk. A full report, containing the lectures given, in the original languages used, is also published by the Fellowship. The Rawson report contains an index of them.

The Conference was chiefly concerned with social change. It felt that the present period of stress and strain must emerge into a better age. Three questions were uppermost: What has brought about the existing crisis? What effect do the various human activities have at present? How can social reconstruction be brought about? The main body of discussion falls under two heads: *Democracy* and *World Unity*. Can democracy be made to work? Can the nations of the world unite?

In a summary volume the answers that were made to these questions must needs appear very theoretical. Less than in previous reports of the Fellowship is there evidence of what is actually being done in education in the various countries. Comparatively few of the speakers could present first-hand knowledge; their illustrations were drawn largely from the work of others. It will be interesting to see whether in succeeding conventions the Fellowship tends toward more concrete reality or continues on the present tack and becomes merely a group of philosophizers.

Mr. Rawson's summary is very readable and stimulating. It provides suggestions as to what some of the more radical educators in England, France, Germany, the United States, and other countries are thinking and saying. An evening spent with it will prove distinctly worth while.

J. F. H.

SUGGESTIVE MATERIALS FOR REORGANIZATION OF HIGH SCHOOL SUBJECTS OF STUDY

For some twelve years the North Central Association of Colleges and Secondary Schools has had a committee at work on "Standards for Use in the Reorganization of Secondary School Curricula." A body of materials collected by the committee is now offered to the public in a volume[5] devoted mainly to presentation of plans for dealing with fourteen school subjects. A large number of persons contributed to the several chapters and hence there is no thoroughly consistent single point of view. Each contribution is credited to its source and the reader may pick and choose. There is evident throughout, however, an attempt to transform the traditional subjects so as to make them more valuable in actual life situations. The analysis of objectives, moreover, worked out by the main committee has been embodied by the subject specialists in their reports. The school grades included are six to twelve.

The reorganizations contemplated do not strike one as very radical. In the chapter on the social studies, for example, there is little to suggest that the pupils should give a thought to how things ought to be, not merely how they have been and are. This chapter covers only grades seven to nine, it is true. Perhaps a later report will recognize the fact that there is something rotten in Denmark—very rotten in fact. The reports on English deal mainly with reading. They depart widely from the tradi-

[4] *A New World in the Making.* Edited by Wyatt Rawson. London: New Education Fellowship, 1933.

[5] *High School Curriculum Reorganization.* Edited by L. W. Webb and others. North Central Association, Ann Arbor, Michigan, 1933.

tional list of classics to be "studied," and reflect an interest in content rather than technique. We find, for instance, such headings as "American Ideals," "Fraternity," "Democracy."

Since the North Central is known to be the most progressive of the several associations of colleges and secondary schools, it is evident that there is no immediate danger of the high schools running amuck. Economics is conspicuous by its absence; social psychology likewise. Young people must continue to look elsewhere than to the school for the answers to their most insistent problems. The publication of this report is exceedingly valuable at this time as showing something of what the situation with regard to secondary education is. It certainly offers little aid and comfort to those who plead for social reconstruction through the schools.

SIGNIFICANT ARTICLES

NEWER ASPECTS OF LIFE IN EDUCATION

Teachers College Record for December is given over in large part to articles dealing with live issues in contemporary education. They are likewise crucial in present-day society. Professor Herbert Bruner writes on "Education's Opportunities and Obligations in the Present Crisis." He analyzes the changes brought about by federal legislation and the economic conditions which have induced it. He then inquires what sort of educational program is demanded, and wonders what can be predicted for the future. In a succeeding article he will carry forward the discussion.

Professor Mort calls attention to the relation of new processes of communication to the curriculum. He is especially interested in moving pictures and shows something of their possibilities, particularly in the case of children who have low reading potentialities and in mass instruction.

Professor Reisner defines progressive education. This he thinks has grown primarily out of the new scientific psychology stimulated by Darwin and first set forth by James in his *Principles of Psychology*. The individual, he declares, has lost his soul in order to gain his personality. We have, accordingly, become involved in the thrilling task of aiding children to grow "in wholeness and balance, in self-control, in social adjustment, in ethical attitudes and loyalties." There has been also a break with traditional philosophy, which has been replaced with the experimentalism of Peirce, James, and Dewey. Finally, we have to reckon with a new and militant humanitarianism. While there may be justifiable differences of opinion with regard to specific procedures to be followed in progressive education, there is a recognizable unity growing out of the same underlying belief regarding the nature of mind, the acceptance of the philosophical method of experimentalism, and commitment to a social ideal of vastly extended human welfare.

This issue contains also an admirable summary of the work of the Joint Commission on the Emergency in Education by the chairman, Professor Norton. This statement is interesting both for the review of the large number of projects already in process of completion and also for the forecast as to plans for the future.

WHAT SHOULD ENGLISH TEACHERS DO ABOUT RESEARCH?

The principal program of the National Council of Teachers of English at the annual convention in November centered in the topic of research. In the *English Journal* for January the address of the president of the Council, Professor Walter Barnes, is printed in full. He noted that the English teacher today finds himself between the horns of a dilemma. Shall he

choose the creative or the scientific? The antagonism between art and research is real and important. Yet the national organization of English teachers must be hospitable to both. The speaker thought the new Council committee on research, with an excellent program of work already laid out, may furnish the solution to the problem. Certainly the Council itself should assume responsibility for research rather than leave all of it to the specialists in that field.

THE TEACHING OF HISTORY UNDER THE NAZI RÉGIME

Professor R. H. Bauer in an article in *The Historical Outlook* for December helps American educators to understand what such a dictatorship as is now in power in Germany may mean to schools and colleges. Writing on "The Nazi Revolution and Its Influence on the Teaching of History in Germany," he traces the successive steps by which Hitler came into power and won the masses to him. Recently the National Socialist Teachers Union announced that it would support the government. This is now seen to involve increased emphasis on history—German, not world history. In short, history is to be a handmaiden of the "Aryan" state. Needless to say, the teachers find themselves obliged to teach what the authorities appear to want rather than what they through study come to believe the truth.

A NEW CIVIC CURRICULUM FOR THE MARGINAL FIFTY PER CENT

In the *Clearing House* for January, Commissioner Butterfield of Connecticut divides the workers of the country into three classes, those who have professions, those with trades, and those with jobs. The first two groups contain twenty-five per cent each and the last the remaining fifty per cent of the whole. The high school is deeply concerned with this "new fifty per cent." It must educate them for jobs and citizenship. To do this a new civic curriculum must be organized, distinct from the curricula designed to prepare for college and for occupations requiring special skills. Five standards for such a curriculum are presented. The content of it is to be arrived at by an analysis of the ordinary life of the citizen. Reading, social science, natural science, art, and recreation will provide the activities.

NEGLECTED ASPECTS OF EDUCATIONAL MEASUREMENT

Professor Willis L. Uhl divides conduct into six kinds or types and declares that four of these have so far been too much neglected by those engaged in devising educational measurements. Writing in the *Journal of Educational Research* for December, he analyzes the processes which the various sorts of conduct involve and shows their interrelations. Competence or growth in many of these processes is not now measured by the batteries of tests in use. The writer offers suggestions as to what additions to existing test materials might be made. For example, tests of social competence might consist largely of problems in social adjustment. Tests of creative ability would present situations similar to those in which the pupil has opportunity to express himself and the results achieved be measured by criteria set up.

AN EDUCATIONAL PROGRAM FOR RELIEF AND RECONSTRUCTION

An address on this topic was delivered by Dr. George F. Zook, United States Commissioner of Education, at the annual convention of the American Vocational Association held in Detroit in December. It will be found in *School and Society* for December 23. The address contains a survey of the activities of the Office of Edu-

cation in connection with the relief program of the Civil Works Administration. But the Commissioner proceeds to the larger issues involved. Should not the Government build schoolhouses as well as roads? Should it not provide opportunity for adult education? Must not vocational training be redirected in view of the rapid changes taking place in industry? And must we not face the question of adequate training for use of leisure? The closing paragraphs express the speaker's conviction that we are passing through the greatest crisis in our history.

THE NEW BOOKS

The Library in the School. By Lucile F. Fargo. Second edition, revised. Chicago: American Library Association, 1933. Pp. 479. Illus. $3.00.

Molders of the American Mind. By Norman Woelfel. New York: Columbia University Press, 1933. Pp. 304. $3.00.

Radio and Education—Proceedings of the Third Annual Assembly of National Advisory Council on Radio in Education, Inc., 1933. Edited by Levering Tyson. Chicago: University of Chicago Press, 1933. Pp. 203. $2.50.

Education on the Air—Fourth Yearbook of the Institute for Education by Radio. Edited by Josephine H. MacLatchy. Columbus: Ohio State University, 1933. Pp. 380.

Klaas and Jansje—Children of the Dikes. By Virginia Olcott. Newark: Silver, Burdett and Co., 1933. Pp. 152. Illus. $0.76.

An Experimental Study of Rewards. By Edward L. Thorndike and others. New York: Teachers College, Columbia University, 1933. Pp. 72. $1.50.

The Influence of Familiarity Upon Children's Preferences for Pictures and Poems. By James E. Mendenhall and Marcia E. Mendenhall. Lincoln School Research Studies. New York: Teachers College, Columbia University, 1933. Pp. 74. $1.50.

Teachers College, Columbia University, New York: Child Development Monographs, 1933: No. 11, *Resistant Behavior of Preschool Children,* by Ruth Kennedy Caille; pp. 142; $1.50. No. 12, *Children's Fears, Dreams, Wishes, Daydreams, Likes, Dislikes, Pleasant and Unpleasant Memories,* by Arthur T. Jersild, Frances V. Markey, and Catherine L. Jersild; pp. 172; $1.75.

IN PAPER COVERS

Forward Steps in Thinking and Writing. By Gordon Wilson *et al.* Newark, N. J.: Silver, Burdett and Co., 1933. Third Year, pp. 96, $.20; Fourth Year, pp. 96, $.20; Fifth Year, pp. 128, $.24; Sixth Year, pp. 128, $.24; Seventh Year, pp. 128, $.24; Eighth Year, pp. 128, $.24.

An Adventure in Education for the Unemployed. By Edwin S. Burdell. Columbus: Ohio State University, October, 1933. Pp. 45.

Liberty and Learning. By William F. Russell. New York: Teachers College, Columbia University, 1933. Pp. 15.

The Home Project in Homemaking Education. Washington, D. C.: Federal Board for Vocational Education, Bulletin No. 170, Home Economics Series No. 16. Government Printing Office, 1933. Pp. 179. $.15.

United States Department of the Interior, Office of Education, Bulletin, 1932, No. 17, National Survey of Secondary Education, Monograph No. 8, *District Organization and Secondary Education,* by Fred Engelhardt *et al*; pp. 208. No. 10, *Articulation of High School and College,* by P. Roy Brammell; pp. 96. No. 12, *Selection and Appointment of Teachers,* by W. S. Deffenbaugh and William H. Zeigel, Jr.; pp. 115. No. 14, *Programs of Guidance,* by William C. Reavis; pp. 144. No. 18, *Procedures in Curriculum Making,* by Edwin S. Lide; pp. 99. No. 24, *Instruction in Foreign Languages,* by Helen M. Eddy; pp. 61. Washington, D. C.: Government Printing Office, 1933. No. 8, $.15; others, $.10 each.

The Outlook in Education. By I. L. Kandel. University of London Institute of Education, Studies and Reports, No. II. London: Oxford University Press, 1933. Pp. 18. Price, 1s net.